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Dept. of Environmental Quality
Office of Waste Services

Cytec Industries Inc.

Fortier Manufacturing Complex

Waggaman, Louisiana

Jefferson Parish

EPA I.D. No. LAD 008175390

**RCRA Part II Permit Renewal Application
Administrative Completeness Review I
Response to Notice of Deficiency (NOD) I**

January, 1999

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**Attachment A LDEQ Administrative Completeness Review I/Notice of Deficiency I Dated
November 5, 1998
Cytec Request for Extension Dated November 23, 1998
LDEQ Extension Request Approval Dated December 3, 1998**

**Attachment B Hazardous Waste Management Key Operating Positions and General
Qualifications**

Cytac Industries Inc. - Fortier
EPA I.D. No. LAD 008175390

Waggaman, Jefferson Parish
Chemical Plant
Response to Completeness NOD I

RCRA Part II; 06/01/98
Revision I; 01/15/99

Transmittal Letter

CYTEC

LDEQ-OSHW
HAZARDOUS WASTE
DIVISION

PF
PSF
SS

CYTEC INDUSTRIES INC.
Fortier Plant
10800 River Road
Westwego, LA 70094
Tel: (504) 431-9511

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PERMITS SECTION

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January 15, 1999

BOUND DOCUMENT
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James H. Brent, Ph.D., Administrator
Louisiana Department of Environmental Quality
Hazardous Waste Division-Permit Section
Post Office Box 82178
Baton Rouge, LA 70884-2178

**RCRA Part II Permit Renewal Application
Administrative Completeness Review I
Response to Notice of Deficiency (NOD) I**

LAP 008/75390

Dear Dr. Brent,

Cytec Industries Inc. – Fortier Manufacturing Complex (Cytec) is herein providing written responses to each individual deficiency as listed in LDEQ's letter dated November 5, 1998. Cytec submitted a request for an extension on November 23, 1998, which LDEQ approved by letter dated December 3, 1998. Copies of the referenced letters are included in Attachment A of this submittal.

Deficiency 1. LAC 33:V.517.L.

In response to this regulation, the applicant references a list of general qualifications of key operating positions at the facility in Appendix S. No list was found. Therefore, the applicant must provide this information.

Response: A list of general qualifications of key operating positions at the facility is included in Attachment B of this submittal.

Deficiency 2. LAC 33:V. Chapter 7, 9, 11 and 13

No response is provided to Chapters 7, 9, 11, or 13. In order for the application to be deemed complete, the applicant must respond to all applicable regulations contained within LAC 33:V. If a chapter or specific regulation within a chapter does not apply, the applicant must provide a response that states why the regulation is not applicable.

Response: Chapters 7, 9, 11, and 13 are not required in Part II information requirements (the formal permit application) as specified in LAC 33:V.517. Furthermore, these chapters are generally applicable to all generators and/or transporters of hazardous waste regardless of their TSD status. Cytec previously

provided responses to the applicable sections of LAC 33:V.Chapters 15 – 37 and 41 as specified in LAC 33:V.517. However, in order to comply with LDEQ's request, responses to Chapters 7,9,11, and 13 are included in this submittal under the corresponding chapter tabs in this submittal.

Deficiency 3. LAC 33:Chapter 17

The Memorandum of Understanding (MOU), referenced in the response to LAC 33:V.1701, covers RCRA, but the response citing the MOU does not explain what is done that meets or exceeds the regulations. The applicant must include all of Chapter 17 text and respond to the cited text in detail, explaining what is done to meet the requirements, rather than simply referencing the MOU.

Response: The responses to LAC 33:V.Chapter 17 are included under the corresponding tab in this submittal.

Additionally, the federal provisions in 40 CFR Subpart CC have not been incorporated into LAC 33:V.Chapter 17. The applicant must cite Subpart CC using the Code of Federal Regulations text and respond to the cited text in detail, explaining what is done to meet the requirements, rather than simply referencing the MOU.

Response: As of the date of this submittal, the provisions of 40 CFR Subpart CC have been incorporated into LAC 33:V.Chapter 17. Therefore, in consultation with Mr. Eric Garner of LDEQ, the responses to LAC 33:V.Chapter 17 are included under the corresponding tab in this submittal.

Deficiency 4. LAC 33:V.Chapter 33

LAC 33:V.3303 and subsequent regulations of Chapter 33 are not included. If the Chapter or specific regulations within the Chapter do not apply, the applicant must provide a response that states why the regulation is not applicable.

Response: The regulations in LAC 33:V.Chapter 33 do not apply to Cytec because Cytec does not currently operate any regulated units that require groundwater monitoring. The applicable sections of LAC 33:V.Chapter 33 are addressed in a separate post closure permit.

Deficiency 5. LAC 33:V.Chapter 35

LAC 33:V.3521 and subsequent sections of Chapter 35 are not included. If the Chapter or specific regulations within the Chapter do not apply, the applicant must provide a response that states why the regulation is not applicable.

Response: The regulations in LAC 33:V.3521 and subsequent sections do not apply to Cytec because Cytec does not currently operate any regulated units that require

groundwater monitoring or post closure care. The applicable sections of LAC 33:V.Chapter 35 are addressed in a separate post closure permit.

Deficiency 6. LAC 33:V.3707.F.1.a&b

These regulations were cited using an older version of LAC 33:V. The regulations cited in the application should be taken from the most recent version of LAC 33:V.

Response: The regulations cited in LAC 33:V.3707.F.1.a&b have been updated to reflect the most recent version of LAC 33:V. The response is included under the Chapter 37 tab in this submittal.

Deficiency 7. LAC 33:V.3711.F.1.a&b

These regulations were cited using an older version of LAC 33:V. The regulations cited in the application should be taken from the most recent version of LAC 33:V.

Response: The regulations cited in LAC 33:V.3711.F.1.a&b have been updated to reflect the most recent version of LAC 33:V. The response is included under the Chapter 37 tab in this submittal.

Deficiency 8. LAC 33:V.3715.F.1.a&b

These regulations were cited using an older version of LAC 33:V. The regulations cited in the application should be taken from the most recent version of LAC 33:V.

Response: The regulations cited in LAC 33:V.3715.F.1.a&b have been updated to reflect the most recent version of LAC 33:V. The response is included under the Chapter 37 tab in this submittal.

Deficiency 9. LAC 33:V.3719.G.

These regulations were cited using an older version of LAC 33:V. The regulations cited in the application should be taken from the most recent version of LAC 33:V.

Response: The regulations cited in LAC 33:V.3719.G. have been updated to reflect the most recent version of LAC 33:V. The response is included under the Chapter 37 tab in this submittal.

Deficiency 10. LAC 33:V.Chapters 38, 39, and 40

Chapters 38, 39, and 40 are not cited, nor is it explained that these operations are not conducted at the facility. The applicant must cite the regulations contained within these chapters, and provide a response. If the chapter or specific regulations within the chapter do not apply, the applicant must provide a response that indicates why.

CYTEC

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Response: Chapters 38, 39, and 40 are not required in Part II information requirements (the formal permit application) as specified in LAC 33:V.517. Furthermore, these chapters are generally applicable to all generators and/or transporters of hazardous waste regardless of their TSD status. As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15—37 and 41. Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Deficiency 11. LAC 33:V.Chapters 43 and 49

Chapters 43 and 49 are not cited nor is it explained why the chapters do not apply. The applicant must cite the regulations contained within these chapters and provide a response. If the chapter or specific regulations within the chapter do not apply, the applicant must provide a response that indicates why.

Response: Chapters 43 and 49 are not required in Part II information requirements (the formal permit application) as specified in LAC 33:V.517. Furthermore, these chapters are generally applicable to all generators and/or transporters of hazardous waste regardless of their TSD status. As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15—37 and 41. Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Deficiency 12. LAC 33:V.Chapter 51

Application fees were submitted separate from the Part A/B document. Responses to Chapter 51 and any calculation of application fees should be submitted with the Part B application.

Response: Responses to Chapter 51 are included under the corresponding chapter tab in this submittal

In accordance with LDEQ's letter dated November 5, 1998, a total of five (5) copies of the written responses to the Administrative Completeness Review I/Notice of Deficiency (NOD) I are being submitted for your review. A computer diskette containing all electronically available information in Microsoft Word format is also included in the original as an attachment to this submittal.

If you have any questions or require additional information, please contact Ms. Stacy M. Foret at (504)431-6479 or Ms. Anita R. Junker at (504) 431-6556.



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I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

This submittal and any past or future communications or discussions regarding this matter are not intended to admit any fact of liability or waive or affect any rights.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. Gill", written over the printed name "Jaswant S. Gill".

Jaswant S. Gill
Director – Manufacturing and Building Blocks and Plant Manager

**Cytec Industries Inc. - Fortier
EPA I.D. No. LAD 008175390**

**Waggaman, Jefferson Parish
Chemical Plant
Response to Completeness MOD I**

**RCRA Part II: 08/01/98
Revision I: 01/16/99**

Computer Diskette

Reference Sheet



REF+51386

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Chapter 7 Administrative Procedures for Treatment, Storage, and Disposal Facility Permits

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 7. Administrative Procedures for Treatment, Storage, and Disposal Facility Permits

Subchapter A. Permits

§701. Emergency Permits

Notwithstanding any other provision, in the event the administrative authority finds an imminent and substantial endangerment to human health or the environment, he may issue a temporary emergency permit (1) to a nonpermitted facility to allow treatment, storage, or disposal of hazardous waste or (2) to a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit. This emergency permit:

- A. may be oral or written; if oral, it shall be followed in five days by a written emergency permit;
- B. shall not exceed 90 days in duration;
- C. shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;
- D. may be terminated by the administrative authority at any time without process if he determines that termination is appropriate to protect human health and the environment;
- E. shall be accompanied by a public notice published under LAC 33:V.715 including:
 - 1. name and address of the office granting the emergency authorization;
 - 2. name and location of the permitted TSD facility;
 - 3. a brief description of the wastes involved;
 - 4. a brief description of the action authorized and reasons for authorizing it; and
 - 5. duration of the emergency permit;
- F. shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable and appropriate requirements of LAC 33:V.Subpart 1.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 18:1256 (November 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:658(April 1998).

Response: Cytex acknowledges the above citation.

§703. Permit Evaluation

- A. **Application Distribution.** Upon acceptance of an application for review, the administrative authority will distribute copies of the application (Part I) for review and comment to: the public (filed with local libraries or other public facility), notification of which is to be published in a bulletin (see LAC 33:V.717), and as an ad in a local newspaper; Water Pollution Division; Air Quality Division; Department of Health and Human Resources, Office of Health Services and Environmental Quality; Department of Wildlife and Fisheries; Office of Public Works of the Department of Transportation and Development; or the successors to any of the above; and to local governing authorities of any municipality and parish within whose territorial jurisdiction the facility or activity is located.
- B. **Review Considerations**
1. In conducting its review of the application, the administrative authority will consider the purpose and use of facilities, operations and monitoring plan, capacity, closure, site suitability, financial responsibility, legal considerations, special considerations deemed necessary by the administrative authority on a site specific basis, and local zoning ordinances.
 2. Comment from the public and involved local, parish, state, and federal agencies will be reviewed. The administrative authority may consider that the agencies that do not comment within 45 days from the date the ad is published in the newspaper have no objection to the proposed operation.
 3. The administrative authority will assist the operator in the modification of the permit application or facility design or operation by:
 - a. conducting staff discussions with operator, designing engineer, and other principals to discuss reasons for denial;
 - b. referencing to "state-of-the-art" procedures and methods which, if incorporated in the operation design, would allow permit reapplication; and
 - c. conducting staff evaluations of objectionable features of application.
 4. Initial compliance inspections shall be made as follows:
 - a. for existing facilities as a part of permit application evaluation; or
 - b. for new facilities ready to begin operation, after a "Request to Perform Initial Inspection" is submitted by the operator to the administrative authority. This inspection determines that new construction was built in conformity with conditions of the permit by a certification from the operator and supervising engineer, and actual department inspection and evaluation.
 5. Order to proceed, or to continue with operation shall be given as follows:

- a. the administrative authority will issue to existing facilities a notice to continue operations, issue an interim permit for a specified length of time to continue, and cite measures which must be taken to satisfy the terms of the permit. Specific target dates will be listed in the permit and a report of compliance will be submitted as required to the administrative authority but in no case less than quarterly; or
 - b. to new facilities the administrative authority will issue a notice permitting operation under a standard permit or issue a list of modifications required, before an order to begin operation will be issued.
6. **Mandatory Provisions.** Operation of existing facilities during department action on the permit application is permitted, in accordance with provisions of the Act, except that when the continued operation of an existing facility is determined by the department to be causing or about to cause irreparable damage to the environment, or a serious threat to life or safety based on recognized criteria or standards, or both, the administrative authority shall institute immediate enforcement actions pursuant to LAC 33:V.107 of these regulations and the Act. During the time period effective as of November 19, 1980; and to extend no longer than the date of issuance of an interim or standard permit, existing treatment, storage and disposal facilities are required to meet interim status standards, in addition to the requirements of prior permits issued before August 1, 1979. Failure to comply with applicable provisions of the interim status standards as set forth in LAC 33:V.Chapter 43 shall be a violation of these regulations.
7. If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken under the applicable statutory provisions.
8. The effective date of an application is the date on which the administrative authority notifies the applicant that the application is complete as provided in LAC 33:V.303.M.
9. For each application from a major TSD facility, the administrative authority shall, no later than the effective date of the application, prepare and mail a project decision schedule to the applicant. The schedule shall specify target dates by which the administrative authority intends to:
 - a. prepare a draft permit;
 - b. give public notice;
 - c. complete the public comment period, including any public hearing; and
 - d. issue a final permit.

C. Draft Permits

1. Once an application is complete, the administrative authority shall tentatively decide whether to prepare a draft permit or to deny the permit.
2. If the administrative authority tentatively decides to deny the permit, a notice of intent to deny shall be issued. A notice of intent to deny the permit is a type of draft permit which follows the same procedures as any draft permit prepared under LAC 33:V.703.C.4. If the administrative authority's final decision is that the tentative decision to deny the permit was incorrect, the notice of intent to deny shall be withdrawn and a draft permit under LAC 33:V.703.C.3 shall be prepared.
3. If the administrative authority decides to prepare a draft permit, he shall prepare a draft permit that contains the following information:
 - a. all conditions under LAC 33:V.309 and 311;
 - b. all compliance schedules under LAC 33:V.325;
 - c. all monitoring requirements under LAC 33:V.309.J; and
 - d. all standards for treatment, storage, and/or disposal facilities and surface facilities for injection wells.
4. All draft permits prepared under this Section shall be accompanied by a fact sheet (LAC 33:V.703.D), and shall be based on the administrative record, publicly noticed (LAC 33:V.715) and made available for public comment (LAC 33:V.707). The administrative authority shall give notice of opportunity for a public hearing (LAC 33:V.711), and respond to comments (LAC 33:V.707).

D. Fact Sheet

1. A fact sheet shall be prepared for every draft permit. The fact sheet shall briefly set forth principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. The administrative authority shall send this fact sheet to the applicant and, on request, to any other person.
2. The fact sheet shall include, when applicable:
 - a. a brief description of the type of facility or activity which is the subject of the draft permit;
 - b. the type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged;
 - c. a brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record;
 - d. reasons why any requested variances or alternatives to required standards do or do not appear justified;
 - e. a description of the procedures for reaching a final decision on the draft permit including:

- i. the beginning and ending dates of the comment period and the address where comments will be received;
 - ii. procedures for requesting a hearing and the nature of that hearing;
 - iii. any other procedures by which the public may participate in the final decision; and
- f. name and telephone number of a person to contact for additional information.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 21:564 (June 1995).

Response: Cytec acknowledges the above citation.

§705. Issuance and Effective Date of Permit

- A. After the close of the public comment period under LAC 33:V.707 on a draft permit, the administrative authority shall issue a final permit decision (or a decision to deny a permit for the active life of a hazardous waste management facility or TSD unit under LAC 33:V.706). The administrative authority shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. This notice shall include reference to the procedures for appealing a decision. For the purpose of this section, a final permit decision means a final decision to issue, deny, modify or revoke and reissue, or terminate a permit.
- B. A final permit decision (or a decision to deny a permit for the active life of a hazardous waste management facility or TSD unit under LAC 33:V.706) shall become effective 30 days after the service of notice of the decision under LAC 33:V.705.A, unless:
- 1. a later effective date is specified in the decision;
 - 2. review is requested under R.S. 30:2024;
 - 3. no comments requested a change in the draft permit, in which case the permit shall become effective immediately upon issuance.

AUTHORITY NOTE: Promulgated in accordance with R.S.30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 14:790 (November 1988), LR 15:181 (March 1989), LR 16:614 (July 1990).

Response: Cytec acknowledges the above citation.

§706. Permit Denial

The administrative authority may, pursuant to the procedures in LAC 33:V.Chapter 7, deny the permit application either in its entirety or as to the active life of a hazardous waste management facility or TSD unit only.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:614 (July 1990), amended LR 21:944 (September 1995).

Response: Cytec acknowledges the above citation.

Subchapter B. Hearings

§707. Public Comments and Requests for Public Hearings

- A. During the public comment period provided under LAC 33:V.715, any interested person may submit written comments on the draft permit or the permit application and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in LAC 33:V.707.B.
- B. Response to Comments. At the time that any final permit decision is issued, the administrative authority shall issue a response to comments.
 - 1. This response shall specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change, and briefly describe and respond to all significant comments on the draft permit or the permit application raised during the public comment period, or during any hearing.
 - 2. The response to comments shall be available to the public.
- C. Within 30 days after a final permit decision (or a decision under LAC 33:V.706 to deny a permit for the active life of a hazardous waste management facility or TSD unit) has been issued under LAC 33:V.705, any person who filed comments on that draft permit or participated in the public hearing may petition the administrative authority to review any condition of the permit decision.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:614 (July 1990).

Response: Cytec acknowledges the above citation.

§708. Preapplication Public Meeting and Notice, Public Notice Requirements at the Application Stage, and Information Repository

A. Preapplication Public Meeting and Notice

1. **Applicability.** The requirements of this Section shall apply to all RCRA part II applications seeking initial permits for hazardous waste management units over which the department has permit issuance authority. The requirements of this Section shall also apply to RCRA part II applications seeking renewal of permits for such units where the renewal application is proposing a significant change in facility operations. For the purposes of this Section a "significant change" is any change that would qualify as a class 3 permit modification under LAC 33:V.321.C. The requirements of this Section do not apply to permit modifications under LAC 33:V.321.C or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.
2. Prior to the submission of a part II RCRA permit application for a facility, the applicant must hold at least one meeting with the public in order to solicit questions from the community and inform the community of proposed hazardous waste management activities. The applicant shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.
3. The applicant shall submit a summary of the meeting, along with the list of attendees and their addresses developed under Subsection A.2 of this Section, and copies of any written comments or materials submitted at the meeting to the permitting agency as a part of the part II application, in accordance with LAC 33:V.517.
4. The applicant must provide public notice of the preapplication meeting at least 30 days prior to the meeting. The applicant must maintain, and provide to the permitting agency upon request, documentation of the notice.
 - a. The applicant shall provide public notice in all of the following forms:
 - i. a newspaper advertisement. The applicant shall publish a notice, fulfilling the requirements in Subsection A.4.b of this Section, in a newspaper of general circulation in the parish or equivalent jurisdiction that hosts the proposed location of the facility. In addition, the administrative authority shall instruct the applicant to publish the notice in newspapers of general circulation in adjacent parishes or equivalent jurisdictions where the administrative authority determines that such publication is necessary to inform the affected public. The notice must be published as a display advertisement;
 - ii. a visible and accessible sign. The applicant shall post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in Subsection A.4.b of this Section. If the applicant places the sign on the facility property, then the sign must be large

- enough to be readable from the nearest point where the public would pass by the site;
- iii. a broadcast media announcement. The applicant shall broadcast a notice, fulfilling the requirements in Subsection A.4.b of this Section, at least once, on at least one local radio station or television station. The applicant may employ another medium with prior approval of the administrative authority;
 - iv. a notice to the department. The applicant shall send a copy of the newspaper notice to the department and to the appropriate units of state and local government, in accordance with LAC 33:V.717.A.2.
- b. The notices required under Subsection A.4.a of this Section must include:
- i. the date, time, and location of the meeting;
 - ii. a brief description of the purpose of the meeting;
 - iii. a brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location;
 - iv. a statement encouraging people to contact the facility at least 72 hours before the meeting if they need special access to participate in the meeting; and
 - v. the name, address, and telephone number of a contact person for the applicant.

B. Public Notice Requirements at the Application Stage

1. **Applicability.** The requirements of this Section shall apply to all RCRA part II applications seeking initial permits for hazardous waste management units over which the department has permit issuance authority. The requirements of this Section shall also apply to RCRA part II applications seeking renewal of permits for such units under LAC 33:V.315.A. The requirements of this Section do not apply to permit modifications under LAC 33:V.321.C or permit applications submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.
2. **Notification at Application Submittal**
 - a. The administrative authority shall provide public notice, as set forth in LAC 33:V.717.A.5, and notice to appropriate units of state and local government, as set forth in LAC 33:V.717.A.2, that a part II permit application has been submitted to the department and is available for review.
 - b. The notice shall be published within a reasonable period of time after the application is received by the administrative authority. The notice must include:
 - i. the name and telephone number of the applicant's contact person;

- ii. the name and telephone number of the permitting agency's contact office and a mailing address to which information, opinions, and inquiries may be directed throughout the permit review process;
 - iii. an address to which people can write in order to be put on the facility mailing list;
 - iv. the location where copies of the permit application and any supporting documents can be viewed and copied;
 - v. a brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location on the front page of the notice; and
 - vi. the date that the application was submitted.
3. Concurrent with the notice required under Subsection B.2 of this Section, the administrative authority must place the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the permitting agency's office.

C. Information Repository

1. **Applicability.** The requirements of this Section apply to all applications seeking RCRA permits for hazardous waste management units over which the department has permit issuance authority.
2. The administrative authority may assess the need, on a case-by-case basis, for an information repository. When assessing the need for an information repository, the administrative authority shall consider a variety of factors including the level of public interest, the type of facility, the presence of an existing repository, and the proximity to the nearest copy of the administrative record. If the administrative authority determines, at any time after submittal of a permit application, that there is a need for a repository, then the administrative authority shall notify the facility that it must establish and maintain an information repository. (See LAC 33:V.309.M for similar provisions relating to the information repository during the life of a permit.)
3. The information repository shall contain all documents, reports, data, and information deemed necessary by the administrative authority to fulfill the purposes for which the repository is established. The administrative authority shall have the discretion to limit the contents of the repository.
4. The information repository shall be located and maintained at a site chosen by the facility. If the administrative authority finds the site unsuitable for the purposes and persons for which it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the administrative authority shall specify a more appropriate site.
5. The administrative authority shall specify requirements for informing the public about the information repository. At a minimum, the administrative authority shall

require the facility to provide a written notice about the information repository to all individuals on the facility mailing list.

6. The facility owner/operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the administrative authority. The administrative authority may close the repository at his or her discretion, based on the factors in Subsection C.2 of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:659(April 1998).

Response: Cytec acknowledges the above citation.

§709. Evidentiary Hearings on Operating Permit Applications for Commercial Hazardous Waste Treatment, Storage, Disposal, or Recycling Facilities

- A. The purpose of an evidentiary hearing is to develop a record of facts, documents, testimony, and pleadings for submission to the administrative authority for consideration in making a permit decision.
- B. An evidentiary hearing shall be held after the technical review on a permit application for operation of a commercial hazardous waste treatment, storage, disposal, or recycling facility. The administrative authority shall direct the Administrative Hearings Division to schedule an evidentiary hearing.
- C. The administrative authority shall give public notice of the hearing at least 30 days prior to the date scheduled for commencement of the hearing.
- D. Public notice shall be given for all evidentiary hearings.
 1. The administrative authority shall mail a copy of a notice to the following persons (any person otherwise entitled to receive notice under this Subsection may waive his or her rights to receive notice for any classes and categories of permits):
 - a. the applicant;
 - b. the parish governing authority;
 - c. those who request notice in writing and those who are on the area mailing list developed by the Hazardous Waste Division Permits Section.
 2. The permit applicant shall publish a notice, provided by the administrative authority, in a daily or weekly major local newspaper of general circulation within the area affected by the facility or activity and in the official journal of the state.
 3. The permit applicant shall provide for broadcasting the notice over a local radio station designated by the administrative authority.

4. The administrative authority shall require the applicant to provide and pay for the notifications in LAC 33:V.709.D.2 and 3 and submit proof thereof.
- E. All public notices issued under LAC 33:V.709.D.1 and 2 shall contain the following minimum information:
1. name and address of the office processing the permit action for which notice is being given;
 2. name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;
 3. a brief description of the business conducted at the facility or activity described in the permit application;
 4. name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the permit application;
 5. a statement that intervention is required to participate at the hearing and a brief description of the procedures to qualify as an intervener;
 6. date, time, and place of the hearing;
 7. a brief description of the nature and purpose of the hearing; and
 8. any additional information considered by the administrative authority to be necessary or proper.
- F. Administrative procedures for adjudications contained in LAC 33:I.Chapter 3 shall apply to evidentiary hearings except as provided in LAC 33:V.709.G and H or where they are incompatible with the purpose of the evidentiary hearing as stated in LAC 33:V.709.A.
- G. The presiding officer shall not make findings of fact, conclusions of law, or recommendations or render decisions on the merits of the permit application. The presiding officer's authority terminates once the record is complete and has been transmitted to the administrative authority.
- H. Administrative procedures for adjudications pertaining to intervention contained in LAC 33:I.323 shall apply to evidentiary hearings.
- I. Upon completion of the evidentiary hearing, the administrative authority may require the applicant to submit additional relevant information to supplement the record.
- J. No draft permit decision shall be issued until after the administrative authority has received and reviewed the record of the evidentiary hearing.

- K. Unless otherwise directed by the secretary in writing, hearing officers hired pursuant to R.S. 30:2018 are hereby delegated authority to perform the functions of the presiding officer in evidentiary hearings.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:683 (August 1990), LR 17:362 (April 1991), LR 21:565 (June 1995).

Response: Cytec acknowledges the above citation.

§711. Public Hearings

A. applicability

1. The administrative authority shall hold a public hearing whenever written notice of opposition to a draft permit and a request for a hearing are received within 45 days of the public hearing notice. Whenever practicable, the administrative authority shall schedule a hearing under this Section at a location convenient to the nearest population center to the proposed facility.
2. The administrative authority may also hold a public hearing at his or her discretion whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision.
3. Public notice of the hearing shall be given as specified in LAC 33:V.713.A.

B. For any public hearing, the administrative authority shall designate a presiding officer who shall be responsible for its scheduling and orderly conduct.

C. Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and written submissions may be required. The public comment period under LAC 33:V.715 shall automatically be extended to the close of any public hearing under this Section. The hearing officer may also extend the comment period by so stating at the hearing.

D. A tape recording or written transcript of the hearing shall be made available to the public.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:478 (May 1991).

Response: Cytec acknowledges the above citation.

Subchapter C. Public Notice of Permit Actions and Public Comment Period

§713. Scope

- A. The administrative authority shall give public notice that the following actions have occurred:
1. a permit application has been tentatively denied under LAC 33:V.703.C.2;
 2. a draft permit has been prepared under LAC 33:V.703.C.3;
 3. a hearing has been scheduled under LAC 33:V.711.A; or
 3. an appeal has been granted under LAC 33:V.323.A.3.
- B. No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied under LAC 33:V.323. Written notice of that denial shall be given to the requester and to the permittee.
- C. Public notices may describe more than one permit or permit action.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytex acknowledges the above citation.

§715. Timing

- A. Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under LAC 33:V.703.C.2 and C.4 shall allow at least 45 days for public comment.
- B. Public notice of a public hearing shall be given at least 45 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytex acknowledges the above citation.

§717. Methods

Public notice of activities described in LAC 33:V.713.A shall be given by the following methods:

- A. By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this Subsection may waive his or her rights to receive notice for any classes and categories of permits):
1. the applicant;
 2. any unit of local government having jurisdiction over the area where the facility is proposed to be located, and each state agency having any authority under state law with respect to the construction or operation of such facility;
 3. any other agency which the administrative authority knows has issued or is required to issue a permit for the same facility or activity;
 4. federal and state agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management plans, the Advisory Council on Historic Preservation, state historic preservation officers, and any affected states (Indian tribes). (For purposes of this Section, and in the context of the underground injection control program only, the term "state" includes Indian tribes treated as states.)
 5. persons on a mailing list, including:
 - a. those who request in writing to be on the list;
 - b. those solicited for "area lists" on the basis of their participation in past permit proceedings in that area; and
 - c. those on the list as a result of notification to the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as regional and state funded newsletters, environmental bulletins, or state law journals. The administrative authority may update the mailing list from time to time by requesting written indication of continued interest from those listed and the administrative authority may delete from the list the name of any person who fails to respond to such a request.
 - d. Also, public notices will be mailed to subscribers to a bulletin issued periodically by the administrative authority. Subscribers will include public officials, industries who operate under department permits, and interested individuals and organizations who request that their name be added to the list. The bulletin will contain information concerning permit applications, actions on permits, suspension and revocation orders, enforcement actions, and other information of public interest concerning the hazardous waste program.
- B. For standard permits or major modifications, publication of a notice in a daily or weekly major local newspaper of general circulation within the area affected by the facility or activity and broadcast over local radio stations. The administrative authority may require the applicant to provide for and pay for the notifications and submit proof thereof.

- C. Any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:478 (May 1991).

Response: Cytec acknowledges the above citation.

§719. Contents

- A. All public notices issued under this Part shall contain the following minimum information:
1. name and address of the office processing the permit action for which notice is being given;
 2. name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;
 3. a brief description of the business conducted at the facility or activity described in the permit application or the draft permit;
 4. name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit or draft general permit, as the case may be, statement of basis or fact sheet, and the application;
 5. a brief description of the comment procedures required by LAC 33:V.707 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision; and
 6. any additional information considered necessary or proper.
- B. Public Notices for Hearings. In addition to the general public notice described in LAC 33:V.719, the public notice of a hearing under LAC 33:V.709 shall contain the following information:
1. reference to the date of previous public notices relating to the permit;
 2. date, time, and place of the hearing; and
 3. a brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 14:790 (November 1988).

Response: Cytex acknowledges the above citation.

§721. Additional Information

In addition to any other notice requirements of this Chapter, a copy of the fact sheet, Part 1 of the permit application, and the draft decision shall be mailed to the applicant, the United States Environmental Protection Agency, the governing authority for the parish in which the facility or activity is located or proposed, and the library repository specifically designated to receive information concerning the facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 21:565 (June 1995).

Response: Cytex acknowledges the above citation.

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 9. Manifest System for TSD Facilities

§901. Applicability

The regulations in this Chapter apply to owners and operators of both on-site and off-site TSD facilities, except as LAC 33:V.1501 provides otherwise. LAC 33:V.905, 907, and 909 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources. LAC 33:V.907.B only applies to permittees who treat, store, or dispose of hazardous wastes on-site where such wastes were generated and to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under LAC 33:V.5307.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 20:1000 (September 1994), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1693 (September 1998).

Response: Cytec acknowledges the above citation. Cytec does not accept hazardous waste from off-site. Cytec as generator, ships hazardous waste off-site under manifest.

§903. Manifest Requirements

A. The manifest must contain all of the following information:

1. a state manifest document number which shall be obtained from this department if the destination point is in Louisiana;
2. the generator's name, mailing address, telephone number, and active EPA identification number;
3. the name, active EPA identification number, and telephone number of each transporter;
4. the name, address, telephone number, and active EPA identification number of the designated facility;
5. the description of the waste(s) (e.g., proper shipping name, hazard class, active EPA hazardous waste number, etc.) required by Louisiana Department of Public Safety and Corrections regulations in §§172.101, 172.202, and 172.203, the department's designated handling codes for waste described; and

6. the total quantity of each hazardous waste by units of weight in tons, cubic yards, pounds, or gallons (liquids only), and the type and number of containers (metal drums, barrels, kegs, fiberboard or plastic drums, cargo tanks, tank trucks, dump trucks, metal boxes, cartons, cases, burlap bags, paper bags, plastic bags, wooden drums, tanks portable, tank cars, cylinders, wooden boxes, and fiber or plastic boxes) as loaded into or onto the transport vehicle. If the weight is unknown, the volume and estimated weight should be provided.
7. The department's handling codes for use on the manifest (effective January 1, 1992) are as follows:

Handling Codes

Metals Recovery (for reuse)

M011 High temperature metals recovery

M012 Retorting

M013 Secondary smelting

M014 Other metals recovery for reuse; e.g., ion exchange, reverse osmosis, acid leaching, etc. (specify in comments)

M019 Metals recovery—type unknown

Solvents Recovery

M021 Fractionation/distillation

M022 Thin film evaporation

M023 Solvent extraction

M024 Other solvent recovery (specify in comments)

M029 Solvents recovery—type unknown

Other Recovery

M031 Acid regeneration

M032 Other recovery; e.g., waste oil recovery, nonsolvent organics recovery, etc. (specify in comments)

M039 Other recovery—type unknown

Incineration

M041 Incineration—liquids

M042 Incineration—sludges

M043 Incineration—solids

M044 Incineration—gases

M049 Incineration—type unknown

Energy Recovery (reuse as fuel)

M051 Energy recovery—liquids

M052 Energy recovery—sludges

M053 Energy recovery—solids

M059 Energy recovery—type unknown

Fuel Blending

M061 Fuel blending

Aqueous Inorganic Treatment

- M071 Chrome reduction followed by chemical precipitation
- M072 Cyanide destruction followed by chemical precipitation
- M073 Cyanide destruction only
- M074 Chemical oxidation followed by chemical precipitation
- M075 Chemical oxidation only
- M076 Wet air oxidation
- M077 Chemical precipitation
- M078 Other aqueous inorganic treatment; e.g., ion exchange, reverse osmosis, etc. (specify in comments)
- M079 Aqueous inorganic treatment—type unknown

Aqueous Organic Treatment

- M081 Biological treatment
- M082 Carbon adsorption
- M083 Air/steam stripping
- M084 Wet air oxidation
- M085 Other aqueous organic treatment (specify in comments)
- M089 Aqueous organic treatment—type unknown

Aqueous Organic and Inorganic Treatment

- M091 Chemical precipitation in combination with biological treatment
- M092 Chemical precipitation in combination with carbon adsorption
- M093 Wet air oxidation
- M094 Other organic/inorganic treatment (specify in comments)
- M099 Aqueous organic and inorganic treatment—type unknown

Sludge Treatment

- M101 Sludge dewatering
- M102 Addition of excess lime
- M103 Absorption/adsorption
- M104 Solvent extraction
- M109 Sludge treatment—type unknown

Stabilization

- M111 Stabilization/Chemical fixation using cementitious and/or pozzolanic materials
- M112 Other stabilization (specify in comments)
- M119 Stabilization—type unknown

Other Treatment

- M121 Neutralization only
- M122 Evaporation only
- M123 Setting/clarification only
- M124 Phase separation (e.g., emulsion breaking, filtration) only
- M125 Other treatment (specify in comments)

M129 Other treatment—type unknown

Disposal

M131 Land treatment/application/farming

M132 Landfill

M133 Surface impoundment (to be closed as a landfill)

M134 Deepwell/underground injection

M135 Direct discharge to sewer/POTW (no prior treatment)

M136 Direct discharge to surface water under NPDES (no prior treatment)

M137 Other disposal (specify in comments)

Transfer Facility Storage

M141 Transfer facility storage, waste was shipped off site with no on-site TDR activity

- B.** The following certification must appear on the manifest: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Louisiana Department of Public Safety, the Louisiana Department of Environmental Quality, the U.S. Department of Transportation, and the U.S. EPA."
- C.** The manifest must consist of at least enough copies to provide the original to the department; one copy each for the generator, each transporter, and the owner or operator of the designated facility; and remaining copies to be signed and returned to the generator and other appropriate parties.
- D.** The manifest form must be obtained from the department. A Louisiana manifest shall be used as follows:
- 1.** if the hazardous waste is generated in Louisiana and disposed of in Louisiana;
 - 2.** if the hazardous waste is generated out of Louisiana and disposed of in Louisiana; or
 - 3.** if the hazardous waste is generated in Louisiana and is disposed of in a state without its own manifest system.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 12:319 (May 1986), LR 17:362 (April 1991).

Response: Cytac acknowledges the above citation.

§905. Use of the Manifest System

- A. If a facility receives a hazardous waste accompanied by a manifest, the owner or operator, or his or her agent, must:
1. sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;
 2. note any significant discrepancies in the manifest (as defined in LAC 33:V.907.A) on each copy of the manifest. The administrative authority does not intend that the owner or operator of a facility whose procedures under LAC 33:V.1519.C include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. LAC 33:V.907.B, however, requires reporting an unreconciled discrepancy discovered during later analysis;
 3. immediately give the transporter at least one copy of the signed manifest;
 4. within seven working days after the delivery, send a signed copy of the manifest to the generator; and
 4. retain at the facility a copy of each manifest for at least three years from the date of delivery or final disposal, whichever is later. After three years, a summary, extract, or microfilm copy of the information shall be retained by the facility to keep records of waste received.
- B. If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:
1. sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;
 2. note any significant discrepancies (as defined in LAC 33:V.907.A) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper. The administrative authority does not intend that the owner or operator of a facility whose procedures under LAC 33:V.1519.C include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. LAC 33:V.907.B, however, requires reporting an unreconciled discrepancy discovered during later analysis;
 3. immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);
 4. within 30 days after the delivery, send a copy of the signed and dated manifest to the generator, however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator. LAC 33:V.1107.D.3 requires

the generator to send three copies of the manifest to the facility when hazardous waste is sent by water (bulk shipment); and

5. retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery or final disposal, whichever is later.
- C. Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of LAC 33:V.1107.
- D. Within three working days of the receipt of a shipment subject to LAC 33:V.Chapter 11.Subchapter B, the owner or operator of the facility must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to competent authorities of all other concerned countries. A copy of the tracking document must be maintained at the facility for at least three years from the date of signature.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:364 (April 1991), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:660(April 1998).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.905 do not apply to Cytec, because Cytec does not receive any manifested shipments of hazardous waste from off-site sources as cited in LAC 33:V.901.

§907. Manifest Discrepancies

- A. Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are: (1) for bulk waste, variations greater than 10 percent in weight; and (2) for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.
- B. Upon discovering a discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). The owner or operator must submit to the administrative authority within five working days a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue. After the discrepancy is resolved, a corrected copy is to be sent to the administrative authority.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:364 (April 1991).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.907 do not apply to Cytec, because Cytec does not receive any manifested shipments of hazardous waste from off-site sources as cited in LAC 33:V.901.

§909. Unmanifested Waste Report

If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in LAC 33:V.1307.E.2, then the owner or operator must prepare and submit a single copy of a report to the administrative authority within 15 days after receiving the waste. Such unmanifested waste storage, treatment, or disposal shall be covered by the facility permit or an emergency permit (LAC 33:V.701), and treatment or disposal shall not occur until approval of the administrative authority is given. The unmanifested waste report must be submitted on the form provided by the administrative authority. Such report must be designated "Unmanifested Waste Report" and include the following information:

- A. the EPA identification number, name, and address of the facility;
- B. the date the facility received the waste;
- C. the EPA identification number, name, and address of the generator and the transporter, if available;
- D. a description and the quantity of each unmanifested hazardous waste and facility received;
- E. the method of treatment, storage, or disposal for each hazardous waste;
- F. the certification signed by the owner or operator of the facility, or his authorized representative; and
- G. a brief explanation of why the waste was unmanifested, if known.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:364 (April 1991).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.909 do not apply to Cytec, because Cytec does not receive any manifested shipments of hazardous waste from off-site sources as cited in LAC 33:V.901.

§911. Manifest Forms

- A. A manifest form containing the information required by these regulations shall be used for all shipments of hazardous waste under this regulation and shall be completed in full by the proper parties.
- B. Sample manifest forms will be available upon request from the department.
- C. The manifest form shall contain a valid and active EPA identification number for the generator, transporter, and disposer, and the valid EPA waste identification number(s).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:364 (April 1991).

Response: Cytex acknowledges the above citation.

§913. Manifest Document Flow

- A. The generator initiates the manifest (original and at least seven copies) as required in LAC 33:V.903. After the transporter signs the manifest, the generator retains one copy for his or her files, mails the second copy to the administrative authority of the generator's state (where the waste was generated), and the original and all other copies accompany the hazardous waste shipment.
- B. The transporter who delivers the hazardous waste to the facility secures the hazardous waste facility operator's signature upon delivery of waste, retains one copy for his or her files, and gives the original and remaining copies to the hazardous waste facility operator.
- C. The hazardous waste facility operator fills out his portion, retains a copy for his files, submits the original to the department no later than seven days after delivery of the hazardous waste and sends all remaining copies to the generator no later than seven days after delivery of the hazardous waste.
- D. The generator files his copy and maintains records in accordance with LAC 33:V.1111.A.1.
- E. The generator, transporter, and hazardous waste facility operator shall maintain file copies of the manifest for a period not less than three years for department inspection, as required in LAC 33:V.317.B.
- F. The generator and hazardous waste facility operator each shall submit an annual report to the department including manifest numbers, total quantity by type of waste handled, its disposition, and all other information requested by the department on the annual report forms. The report shall cover the preceding calendar year and shall be submitted by March 1.

- G. The signing of the manifest by the generator, transporter, or hazardous waste facility operator certifies that to the best of his knowledge, his portion of the manifest is accurately and correctly filled out. The generator further certifies that the material is properly packaged, marked, and labeled and is in a proper container for transportation.
- H. Except as otherwise provided in LAC 33:V.919 and 1309.G, hazardous waste facility operators are required to report to the department any irregularities between the wastes actually received and the waste described on the manifest, or any other irregularities, within five days.
- I. Additional generator responsibilities for rail shipments are contained in LAC 33:V.1107.D.4 and 5.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 12:319 (May 1986), LR 17:362 (April 1991), LR 18:1256 (November 1992).

Response: Cytec acknowledges the above citation.

§915. Facilities Accepting Out-of-State Wastes

The operator of a hazardous waste facility accepting out-of-state wastes is responsible for all the requirements of this Section, including requiring the generator to initiate a manifest.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: The requirements of LAC 33:V.915 do not apply to Cytec, because Cytec does accept hazardous waste from off-site.

§917. Hazardous Wastes Not Properly Manifested

When hazardous wastes are not properly manifested and shipped but are to be accepted by the operator of a hazardous waste facility, the requirements of LAC 33:V.909 should be followed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.917 do not apply to Cytec, because Cytec does not receive any manifested shipments of hazardous waste from off-site sources.

§919. Hazardous Waste Rejections

If any hazardous waste is rejected by the operator of a hazardous waste facility, the operator of that facility is to notify the department immediately (within 24 hours) by telephone and give reasons why the waste was rejected. Within seven days of the refusal to accept the wastes, the operator must provide the administrative authority with a written explanation of why the waste was rejected.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:364 (April 1991).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.919 do not apply to Cytec, because Cytec does not receive any manifested shipments of hazardous waste from off-site sources.

§921. TSD Operator Responsibility

The operator of any treatment, storage, and disposal facility will assume all the responsibilities of a generator established by these regulations for any hazardous waste transported from his facility to another permitted facility, except for waste rejected under LAC 33:V.919.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation.

§923. Special Manifest Provisions

- A. **Scope.** These provisions will apply to material in containers meeting the provisions of lab packs except that the outer container, excluding overpacking, shall not exceed five gallons (20 liters) in total liquid capacity prior to addition of the absorbent. The container and overpacking shall comply with applicable requirements of the Louisiana Department of Public Safety and Corrections or its successor agency. Except as otherwise provided herein, the requirements of LAC 33:V.2519 shall be met.
- B. **Reporting and Recordkeeping.** Both the generator and disposer shall maintain copies of the manifests and other records as required elsewhere in LAC 33:V.Subpart 1. The generator and disposer shall include all such wastes in the annual report as provided in LAC 33:V.913.F and 1111.B.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:364 (April 1991).

Response: Cytex acknowledges the above citation.

Chapter 11 Generators

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 11. Generators

§1101. Applicability

- A. A generator who treats, stores, or disposes of hazardous waste on-site is not required to comply with the requirements of this Chapter except for the following with respect to that waste: LAC 33:V.1101.C, 1103, 1105, 1109.E, 1111.A.3 and 4, 1111.D, 1115, 1117, 1119 and 1121.
- B. Any person who exports or imports hazardous waste subject to the manifesting requirements of this Chapter, or subject to the universal waste management standards of LAC 33:V.Chapter 38, to or from the countries listed in LAC 33:V.1113.I.1.a for recovery must comply with Subchapter B of this Chapter.
- C. Any person who imports hazardous waste from a foreign country into the state of Louisiana must comply with the standards applicable to generators established in this Chapter.
- D. A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with the standards in this Chapter or other standards in the LAC 33:V.Chapters 3, 5, 7, 9, 15, 17, 19, 21, 23, 25, 27, 28, 29, 31, 32, 33, 35, 37, and 43 for those wastes, provided he triple rinses each emptied pesticide container in accordance with the provisions of LAC 33:V.109.Empty Container.3 and disposes of the pesticide residues in a manner consistent with the disposal instructions on the pesticide label.
- E. A person who generates a hazardous waste as defined in LAC 33:V.109 and further specified in LAC 33:V.Chapter 49 is subject to the requirements of this Chapter and penalties prescribed in the Act for noncompliance.
- F. An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility must comply with the generator standards established in this Chapter. The provisions of LAC 33:V.1109.E are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of LAC 33:V.1109.E only apply to owners or operators who are shipping hazardous waste which they generated at that facility. A generator who treats, stores, or disposes of hazardous waste on-site must comply with the applicable standards and permit requirements set forth in LAC 33:V.Subpart 1.
- G. A person who generates a hazardous waste as defined in LAC 33:V.109 and further specified in LAC 33:V.Chapter 49 is subject to the requirements of these chapters and shall register with the department in accordance with the applicable provisions of LAC 33:V.303.

- H. Persons responding to an explosives or munitions emergency in accordance with LAC 33:V.1501.C.7.a.iv or d or 4307 and 305.C.12 or 13 are not required to comply with the standards of this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:398 (May 1990), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 22:20 (January 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:660 (April 1998), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1106 (June 1998), LR 24:1693 (September 1998).

Response: Cytac acknowledges the above citation.

§1103. Hazardous Waste Determination

A person who generates a solid waste, as defined in LAC 33:V.109, must determine if that waste is a hazard.

- A. First, the generator must determine if the waste is exempted from regulation under LAC 33:V.105.D.
- B. For the purposes of compliance with LAC 33:V.Chapter 22, or if the waste is not listed as a hazardous waste in LAC 33:V.4901, the generator must determine whether the waste is identified in LAC 33:V.4903 by either:
1. testing the waste according to the methods set forth in the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, or according to an equivalent method approved by the administrative authority; or
 2. applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.
- C. If the waste is determined to be hazardous, the generator must refer to other parts of LAC 33:V.Subpart 1 for possible exclusions or prohibitions pertaining to management of his or her specific wastes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 15:378 (May 1989), LR 17:658 (July 1991), LR 22:818 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1693 (September 1998).

Response: Cytac acknowledges the above citation.

§1105. EPA Identification Numbers

A generator must not treat, store, dispose of, transport or offer for transportation hazardous waste without having received an active EPA identification number.

- A. A generator who has not received an active EPA identification number must obtain one by applying to the administrative authority using the form provided within 14 days after first generating any hazardous waste.
- B. A generator must notify the administrative authority within seven days if any of the information submitted in the application for the identification number changes. Because EPA identification numbers are site-specific, if a facility moves to another location, the owner/operator must obtain a new EPA identification number for the facility.
- C. A generator must not offer his or her hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received an active EPA identification number and the required permits (or interim status) necessary to receive and manage the generator's waste.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:362 (April 1991), LR 18:1256 (November 1992).

Response: Cytec acknowledges the above citation. Cytec's EPA identification number is LAD 008175390.

§1107. The Manifest System

A. General Requirements

- 1. A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal must prepare a manifest before transporting the waste off-site, with the exclusions of generators exempt pursuant to provisions of LAC 33:V.105.D.
- 2. A generator must designate on the manifest one facility which is permitted to handle the waste described on the manifest.
- 3. If the transporter is unable to deliver the hazardous waste to the designated facility, the generator must either designate another facility or instruct the transporter to return the waste.
- 4. Reserved
- 5. In naming a hazardous waste, a generator shall use the proper shipping name prescribed by the Louisiana Department of Public Safety and Corrections or its successor agency and provide specific identification pursuant to LAC 33:V.Chapter 49.

6. If the hazardous waste is to be transported out-of-state, the generator will be responsible for receiving the completed, signed manifest from the out-of-state hazardous waste facility.
7. Generators must get written confirmation of acceptability of the hazardous waste from the operator of the hazardous waste facility before shipping the hazardous waste. The confirmation must be maintained as part of the facility manifest records (See LAC 33:V.1111).
8. Except as otherwise provided in LAC 33:V.919 and 1309.F, generators are required to report to the department any irregularities between the wastes actually received and the waste described on the manifest, or any other irregularities, within 15 days.
9. The manifest form and the continuation sheet used must be obtained from the department.
10. If additional space is needed on the manifest form, another manifest form or a continuation sheet may be used.
11. The requirements of this Chapter and LAC 33:V.33.1109.C do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Notwithstanding LAC 33:V.1301.A, the generator or transporter must comply with the requirements for transporters set forth in LAC 33:V.1315 and 1317 in the event of a discharge of hazardous waste on a public or private right-of-way.

B. Required Information

1. The manifest must contain all of the following information prior to leaving the generator site:
 - a. a state manifest document which shall be obtained from this department if the destination point is in Louisiana;
 - b. the generator's name, mailing address, telephone number, and active EPA identification number;
 - c. the name, active EPA identification number and telephone number of each transporter;
 - d. the name, address, telephone number and active EPA identification number of the designated facility;
 - e. the description of the waste(s) (e.g., proper shipping name, EPA hazardous waste number, etc.) required by Hazardous Materials regulations of the Louisiana Department of Public Safety and Corrections in LAC 33:V.Subpart 2.Chapter 101, and the department's designated handling codes for waste listed; and

- f. the total quantity of each hazardous waste by units of weight in tons, cubic yards, pounds, or gallons (liquids only), and the type and number of containers (metal drums, barrels, kegs, fiberboard or plastic drums, cargo tanks, tank trucks, dump trucks, metal boxes, cartons, cases, burlap bags, paper bags, plastic bags, wooden drums, tanks portable, tank cars, cylinders, wooden boxes, and fiber or plastic boxes) as loaded into or onto the transport vehicle. If the weight is unknown, the volume and estimated weight should be provided.
2. The certification that appears on the manifest must be read, signed, and dated by the generator as follows: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me that minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."
- C. Number of Copies. The manifest consists of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and remaining copies to be returned to the generator and other appropriate parties.
- D. Use of the Manifest
 1. The generator must:
 - a. sign and date the manifest certification by hand when the initial transporter accepts the shipment;
 - b. obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and
 - c. retain one copy, in accordance with LAC 33:V.1111.A.
 2. The generator must give the transporter the remaining copies of the manifest.
 3. For shipments of hazardous waste within the United States solely by water (bulk shipments only), the generator must send three copies of the manifest dated and signed in accordance with this Section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.
 4. For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator must complete the transporter section of the

manifest less signature, retain one copy of the completed manifest, and send at least three copies of the manifest dated and signed in accordance with this Section to:

- a. the next non-rail transporter, if any; or
- b. the designated facility if transported solely by rail; or
- c. the last rail transporter to handle the waste in the United States if exported by rail. [Note: See LAC 33:V.1307.E and F for special provisions for rail or water (bulk shipment) transporters.]

5. Reserved

6. For shipments of hazardous waste to a designated facility in an authorized state that has not yet obtained authorization to regulate that particular waste as hazardous, the generator must assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 12:319 (May 1986), LR 16:220 (March 1990), LR 17:362 (April 1991), LR 17:478 (May 1991), LR 18:1256 (November 1992), LR 20:1109 (October 1994), LR 21:266 (March 1995), LR 21:267 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1693 (September 1998).

Response: Cytac acknowledges the above citation.

§1108. Manifest System Emergency Response Information

- A. Generators must provide a Chem-Card or similar emergency card, or a statement concerning the hazardous nature of the material and general guidelines for an emergency situation involving this hazardous waste to accompany the manifest on shipments and loads.
- B. The generator will supply the railroad company with the necessary emergency response information and the manifest document number, which are to be included on the waybill.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1256 (November 1992).

Response: Cytac acknowledges the above citation.

§1109. Pre-Transport Requirements

- A. **Packaging.** Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the

applicable Department of Public Safety regulations and packaging under LAC 33:V.Subpart 2.Chapter 101.

1. Hazardous waste, liquid, or solid not otherwise specified must meet the requirement of Subchapter C of 49 CFR, and/or the Louisiana Hazardous Material Regulations Subchapter C. Special attention must be directed towards LAC 33:V.Subpart 2.Chapter 101.
 2. Dump type transport vehicles in addition to LAC 33:V.1109.A.1 must have a continuous plastic lining with a minimum thickness of 6 mil, be bindered or bolted in order to prevent accidental leakage or escape of the material (Trip binders are not acceptable), must be completely covered by a tarpaulin that is secured to insure no leakage during normal transportation, and the material transported must be solidified with a medium to such consistency that insures the material will not shift, creep, crawl or splash during emergency braking from 20 mph, or accomplish these requirements by other means acceptable to the administrative authority.
 3. Portable tank or "sludge" containers in addition to LAC 33:V.1109.A.1 must have fill, discharge, and similar openings of the container bindered or bolted to prevent discharge during transport, be secured to the transport vehicle to insure that the container will not shift laterally or longitudinally during transportation, or accomplish these requirements by other means acceptable to the administrative authority.
- B. Labeling. Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable transportation regulations on hazardous materials of the Louisiana Department of Public Safety and Corrections or its successor agency under LAC 33:V.Subpart 2.Chapter 101.
- C. Marking. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the Department of Public Safety regulations (see Department of Public Safety regulation LAC 33:V.Subpart 2.Chapter 101). Hazardous waste: Federal and state law prohibits improper disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address _____
Manifest Document Number _____

- D. Placarding. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Public Safety regulations for hazardous materials under LAC 33:V.Subpart 2.Chapter 101.
- E. Accumulation Time

1. Except as provided in LAC 33:V.1109.E.7, a generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status provided that:
 - a. the waste is placed:
 - i. in containers and the generator complies with LAC 33:V.Chapter 43.Subchapter H; and/or
 - ii. in tanks and the generator complies with LAC 33:V.Chapter 43.Subchapter I, except LAC 33:V.4442 and 4445 ; and/or
 - iii. on drip pads and the generator complies with LAC 33:V.Chapter 43.Subchapter S and maintains the following records at the facility:
 - (a). a description of procedures that will be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days; and
 - (b). documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal; and/or
 - iv. in containment buildings and the generator complies with LAC 33:V.Chapter 43.Subchapter T by having placed his professional engineer certification that the building complies with the design standards specified in LAC 33:V.4703 in the facility's operating record no later than 60 days after the date of initial operation of the unit. After February 18, 1993, PE certification will be required prior to operation of the unit. The owner or operator shall maintain the following records at the facility:
 - (a). a written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that they are consistent with respecting the 90-day limit, and documentation that the procedures are complied with; or
 - (b). documentation that the unit is emptied at least once every 90 days;
 - b. such a generator is exempt from all requirements in LAC 33:V.Chapter 43. Subchapters F and G, except for LAC 33:V.4379 and 4385;
 - c. the date upon which each period of accumulation begins is clearly marked on each container and visible for inspection on each container;
 - d. while being accumulated on-site, each container and tank is labeled or marked clearly with the words "Hazardous Waste"; and
 - d. the generator complies with the requirements for owners or operators in LAC 33:V.2245.D, 4319 and in Chapter 43.Subchapters B and C.
2. A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the permitting requirements as specified in LAC 33:V.Subpart 1 unless he has been granted an extension to the 90-day period. Such an extension may be granted by the administrative authority if hazardous wastes must remain on-site for longer than 90 days due to

unforeseen, temporary, or uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the administrative authority on a case-by-case basis.

3. Generators who accumulate hazardous waste for less than 90 days are subject to the requirements of LAC 33:V.1115, 1117, 1119, and 2245 of these regulations.
4. A generator may accumulate as much as 55 gallons of hazardous waste listed in LAC 33:V.4901.B, C, D, F, or 4903, or one quart of acutely hazardous waste listed in LAC 33:V.4901.E in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with LAC 33:V.1109.E.1 of this Section provided he complies with LAC 33:V.2103, 2105, 2107.A and marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.
5. A generator who accumulates either hazardous waste or acutely hazardous waste listed in LAC 33:V.4901.E in excess of the amounts listed in Subsection E.4.a of this Section at or near any point of generation must, with respect to that amount of excess waste, comply within three days with Subsection E.1 of this Section or other applicable provisions of this Chapter.
6. During the three-day period, the generator must continue to comply with LAC 33:V.1109.E.4 of this Section. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amounts began accumulating.
7. A generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status provided that:
 - a. the generator complies with the requirements of LAC 33:V.Chapter 43.Subchapter H except for LAC 33:V.4427;
 - b. the generator complies with the requirements of LAC 33:V.4301.E;
 - c. the generator complies with the requirements of LAC 33:V.1109.E.1; the requirements of LAC 33:V.Chapter 43.Subchapter B; and the requirements of LAC 33:V.2245.E;
 - d. the generator complies with the following requirements:
 - i. at all times there must be at least one employee either on the premises or on call (i.e. available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in LAC 33:V.1109.E.7.e.iv. This employee is the emergency coordinator;
 - ii. the generator must post the following information next to the telephone:
 - (a). the name and telephone number of the emergency coordinator;

- (b). location of fire extinguishers and spill control material, and, if present, fire alarm; and
 - (c). the telephone number of the fire department, unless the facility has a direct alarm;
- iii. the generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
- iv. the emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows:
 - (a). in the event of a fire, call the fire department or attempt to extinguish the fire with a fire extinguisher;
 - (b). in the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;
 - (c). in the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator has knowledge that a spill has reached surface water, the generator must immediately notify the administrative authority. The report must include the following information:
 - (i). the name, address, and U.S. EPA Identification Number of the generator;
 - (ii). date, time, and type of incident (e.g., spill or fire);
 - (iii). quantity and type of hazardous waste involved in the incident;
 - (iv). extent of injuries, if any; and
 - (v). estimated quantity and disposition of recovered materials, if any.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 16:47 (January 1990), LR 16:220 (March 1990), LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 18:1256 (November 1992), LR 18:1375 (December 1992), LR 20:1000 (September 1994), LR 20:1109 (October 1994), LR 21:266 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24.1693 (September 1998).

Response: Cytac acknowledges the above citation.

§1111. Recordkeeping and Reporting

A. Recordkeeping

1. A generator must keep a copy of each manifest signed in accordance with LAC 33:V.1107.D.1 for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained

- as a record for at least three years from the date the waste was accepted by the initial transporter.
2. A generator, must keep a copy of each Annual Report and Exception Report for a period of at least three years from the due date of the report.
 3. A generator must keep records of any test results, waste analyses, or other determinations made in accordance with LAC 33:V.1103 for at least three years from the date that the waste was last sent to an on-site or off-site treatment, storage, or disposal facility.
 4. The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the administrative authority.

B. Annual Report

1. A generator who ships any hazardous waste off-site to a treatment, storage, or disposal facility within the United States must prepare and submit a single copy of an annual report to the administrative authority by March 1 of each year. The annual report must be submitted on the form provided by the administrative authority and it must cover generator activities during the previous calendar year. The reports must also include the following information:
 - a. the EPA identification number, name, and address of the generator;
 - b. the calendar year covered by the report;
 - c. the EPA identification number, name, and address of each off-site treatment, storage, or disposal facility in the United States to which waste was shipped during the year;
 - d. the name and EPA identification number of each transporter used during the reporting year for shipments to a treatment, storage, or disposal facility within the United States;
 - e. a description of the waste, the EPA hazardous waste number (see LAC 33:V.4901 or 4903), U.S. Department of Transportation hazard class, and quantity of each hazardous waste shipped off-site for shipments to a treatment, storage, or disposal facility within the United States. This information must be listed by EPA identification number of each such off-site facility to which waste was shipped;
 - f. the certification signed by the generator or his authorized representative;
 - g. a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;
 - h. a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available.
2. Generators who also dispose, treat, or store hazardous waste on-site shall also submit annual reports to the department, reporting total quantity, by type, of waste handled, and how that waste was disposed, treated, or stored. Generators must maintain on site a copy of each report submitted to the department for a

period of at least three years from the date of the report. Reporting for exports of hazardous waste is not required on the annual report form. A separate annual report requirement is set forth in LAC 33:V.1113.G.

C. Exception Reporting

1. A generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 15 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste.
2. A generator must submit an Exception Report to the administrative authority if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The Exception Report must include:
 - a. a legible copy of the manifest for which the generator does not have confirmation of delivery; and
 - b. a cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

D. Additional Reporting. The administrative authority, as it deems necessary under the Act, may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in LAC 33:V.Chapter 49.

E. Quarterly Reports. Generators who dispose of hazardous waste on-site shall submit a quarterly report (form approved by the administrative authority) no later than 15 days after the beginning of the quarter to the department reporting total quantities (calculated on a daily basis), by type of waste handled, and how that waste was disposed of during the previous calendar quarter, and shall retain on-site a copy of the report for at least three years from the date of disposal.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:220 (March 1990), LR 17:365 (April 1991), LR 20:1000 (September 1994), LR 20:1109 (October 1994).

Response: Cytec acknowledges the above citation.

§1113. Exports of Hazardous Waste

A. Applicability. Any person who exports hazardous waste to a foreign country, from a point of departure in the state of Louisiana, must comply with the requirements of this Chapter and with the special requirements of LAC 33:V.1113. LAC 33:V.1113 establishes requirements applicable to exports of hazardous waste. A primary exporter

of hazardous waste must comply with the special requirements of LAC 33:V.1113, and a transporter who transports hazardous waste for export must comply with applicable requirements of LAC 33:V.Chapter 13.

B. Reserved

C. General Requirements. Exports of hazardous wastes are prohibited except in compliance with the applicable requirements of LAC 33:V.1113 and Chapter 13. Exports of hazardous waste are prohibited unless:

1. notification in accordance with LAC 33:V.1113.D has been provided;
2. the appropriate authority in the receiving country has consented to accept the hazardous waste;
3. a copy of the EPA Acknowledgment of Consent for the shipment accompanies the hazardous waste shipment and, unless exported by rail, is attached to the manifest (or shipping paper for exports by water [bulk shipment]);
4. the hazardous waste shipment conforms to the terms of the receiving country's written consent as reflected in the EPA Acknowledgement of Consent.

D. Notification of Intent to Export

1. A primary exporter of hazardous waste must notify the United States Environmental Protection Agency of an intended export before such waste is scheduled to leave the United States. A complete notification should be submitted 60 days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a 12-month or lesser period. The notification must be in writing, signed by the primary exporter, and include the following information:
 - a. name, mailing address, telephone number, and EPA ID number of the primary exporter;
 - b. by consignee, for each hazardous waste type:
 - i. a description of the hazardous waste and the EPA hazardous waste number (LAC 33:V.4901 and 4903), U.S. Department of Transportation proper shipping name, hazard class, and ID number for each hazardous waste as identified in 49 CFR Part 171-177;
 - ii. the estimated frequency or rate at which such waste is to be exported and the period of time over which such waste is to be exported;
 - iii. the estimated total quantity of the hazardous waste in units as specified in the instructions to the Uniform Hazardous Waste Manifest Form (8700-22);
 - iv. all points of entry to and departure from each foreign country through which the hazardous waste will pass;
 - v. a description of the means by which each shipment of the hazardous waste will be transported (e.g., mode of transportation

- vehicle [air, highway, rail, water, etc.], type[s] of container [drums, boxes, tanks, etc.]);
- vi. a description of the manner in which the hazardous waste will be treated, stored, or disposed of in the receiving country (e.g., land or ocean incineration, other land disposal, ocean dumping, recycling);
 - vii. the name and site address of the consignee and any alternate consignee; and
 - viii. the name of any transit countries through which the hazardous waste will be sent and a description of the approximate length of time the hazardous waste will remain in such country and the nature of its handling while there.
2. Notification shall be sent to the Louisiana Department of Environmental Quality with "Attention: Notification to Export" prominently displayed on the front of the envelope. [Note: This does not relieve the regulated community from the requirement of submitting notification to the Office of Waste Programs Enforcement, RCRA Enforcement Division (OS-520), EPA, as required by 40 CFR 262.53(b).]
 3. Except for changes to the telephone number required by Subsection D.1.a. of this Section, changes to the information required by Subsection D.1.b.v of this Section, and decreases in the quantity indicated pursuant to Subsection D.1.b.iii of this Section, when the conditions specified on the original notification change (including any exceedance of the estimate of the quantity of hazardous waste specified in the original notification), the primary exporter must provide the United States Environmental Protection Agency with a written renotification of the change. The shipment cannot take place until consent of the receiving country to the changes (except for changes to Subsection D.1.b.viii of this Section and in the ports of entry to and departure from transit countries pursuant to Subsection D.1.b.iv of this Section) has been obtained and the primary exporter received an EPA Acknowledgment of Consent reflecting the receiving country's consent to the changes.
 4. Upon request by the United States Environmental Protection Agency, a primary exporter shall furnish to the United States Environmental Protection Agency any additional information which a receiving country requests in order to respond to a notification.
 5. The administrative authority will provide a complete notification to the receiving country and any transit countries. A notification is complete when the administrative authority receives a notification which the administrative authority determines satisfies the requirements of LAC 33:V.1113.D.1. Where a claim of confidentiality is asserted with respect to any notification information required by LAC 33:V.1113.D.1, the administrative authority may find the notification not complete until any such claim is resolved in accordance with LAC 33:I.Chapter 5.
 6. Where the receiving country consents to the receipt of the hazardous waste, the administrative authority will forward an EPA Acknowledgement of Consent to the

primary exporter for purposes of LAC 33:V.1113.E.8. Where the receiving country objects to receipt of the hazardous waste or withdraws a prior consent, the administrative authority will notify the primary exporter in writing. The EPA will also notify the primary exporter of any responses from transit countries.

E. Special Manifest Requirements. A primary exporter must comply with manifest requirements of LAC 33:V.1107, except for the following:

1. in lieu of the name, site address, and EPA ID number of the designated permitted facility, the primary exporter must enter the name and site address of the consignee;
2. in lieu of the name, site address, and EPA ID number of a permitted alternate facility, the primary exporter may enter the name and site address of any alternate consignee;
3. in Special Handling Instructions and Additional Information, the primary exporter must identify the point of departure from the United States;
4. the following statement must be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgment of Consent";
5. in lieu of the requirements of LAC 33:V.1107.A.6, the primary exporter must obtain the manifest form from the department;
6. the primary exporter must require the consignee to confirm in writing the delivery of the hazardous waste to that facility and to describe any significant discrepancies between the manifest and the shipment (as defined in LAC 33:V.907.A). A copy of the manifest signed by such facility may be used to confirm delivery of the hazardous waste;
7. in lieu of the requirements of LAC 33:V.1107.A.3, where a shipment cannot be delivered for any reason to the designated or alternate consignee, the primary exporter must:
 - a. renotify the United States Environmental Protection Agency of a change in the conditions of the original notification to allow shipment to a new consignee in accordance with LAC 33:V.1113.D.3 and obtain an EPA Acknowledgment of Consent prior to delivery; or
 - b. instruct the transporter to return the waste to the primary exporter in the United States or designate another facility within the United States; and
 - c. instruct the transporter to revise the manifest in accordance with the primary exporter's instructions.
8. the primary exporter must attach a copy of the EPA Acknowledgement of Consent to the shipment to the manifest which must accompany the hazardous waste shipment. For exports by rail or water (bulk shipment), the primary

exporter must provide the transporter with an EPA Acknowledgment of Consent which must accompany the hazardous waste but which need not be attached to the manifest except that for exports by water (bulk shipment) the primary exporter must attach the copy of the EPA Acknowledgment of Consent to the shipping paper;

9. the primary exporter shall provide the transporter with an additional copy of the manifest for delivery to the U.S. Customs official at the point the hazardous waste leaves the United States in accordance with LAC 33:V.1307.G.4.

E. Exception Reports. In lieu of the requirements of LAC 33:V.1111.C, a primary exporter must file an Exception Report with the United States Environmental Protection Agency, if:

1. he has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within 45 days from the date it was accepted by the initial transporter;
2. within 90 days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received; or
3. the waste is returned to the United States.

G. Annual Reports

1. Primary exporters of hazardous waste shall file with the United States Environmental Protection Agency no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all hazardous waste exported during the previous calendar year. Such reports shall include the following:
 - a. the EPA identification number, name, and mailing and site address of the exporter;
 - b. the calendar year covered by the report;
 - c. the name and site address of each consignee;
 - d. by consignee, for each hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number (from LAC 33:V.4901 or 4903), U.S. Department of Transportation hazard class, the name and US EPA ID number (where applicable) for each transporter used, the total amount of waste shipped and number of shipments pursuant to each notification;
 - e. except for hazardous waste produced by exporters of less than 100 kg in a calendar month, unless provided pursuant to LAC 33:V.1111.B:
 - i. a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

- ii. a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.
- f. a certification signed by the primary exporter which states:
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

- 2. Reports shall be sent to the administrative authority of the Louisiana Department of Environmental Quality. [Note: This does not relieve the regulated community from the requirement of submitting annual reports to the Office of Waste Programs Enforcement, RCRA Enforcement Division (OS-520), EPA.]

H. Recordkeeping

- 1. For all exports a primary exporter must:
 - a. keep a copy of each notification of intent to export for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;
 - b. keep a copy of each EPA Acknowledgment of Consent for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;
 - c. keep a copy of each confirmation of delivery of the hazardous waste from the consignee for at least three years from the date the hazardous waste was accepted by the initial transporter; and
 - d. keep a copy of each annual report for a period of at least three years from the due date of the report.
- 2. The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the United States Environmental Protection Agency.

I. International Agreements

- 1. Any person who exports or imports hazardous waste subject to manifest requirements of this Chapter, or subject to the universal waste management standards of LAC 33:V.Chapter 38, to or from designated member countries of the Organization for Economic Cooperation and Development (OECD), as defined in LAC 33:V.1113.I.1.a, for purposes of recovery is subject to Subchapter B of this Section. The requirements of this Section and LAC 33:V.1123 do not apply.

- a. For the purposes of these regulations the designated OECD countries consist of Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.
 - b. For the purposes of these regulations, Canada and Mexico are considered OECD member countries only for the purpose of transit.
2. Any person who exports hazardous waste to or imports hazardous waste from a designated OECD member country for purposes other than recovery (e.g., incineration, disposal), Mexico (for any purpose), or Canada (for any purpose) remains subject to the requirements of this Section and LAC 33:V.1123.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:220 (March 1990), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 20:1109 (October 1994), LR 21:944 (September 1995), LR 22:20 (January 1996), amended by the Office of the Secretary, LR 22:344 (May 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:661 (April 1998).

Response: Cytec acknowledges the above citation.

§1115. Preparedness and Prevention

All generators shall comply with the requirements of LAC 33:V.1511.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992).

Response: Cytec acknowledges the above citation. Refer to LAC 33:V. Chapter 15 responses submitted on June 1, 1998 for additional information regarding compliance with LAC 33:V.1511.

§1117. Contingency Plan

Each generator shall prepare a contingency plan. The contingency plan must include the information as specified in LAC 33:V.1513.A, B, C, D.2, and F. The contingency plan shall include a section describing emergency response procedure as specified in LAC 33:V.1513.F.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984).

Response: Cytec acknowledges the above citation. Refer to LAC 33:V.Chapter 15 responses submitted on June 1, 1998 for additional information regarding compliance with LAC 33:V.1513.A, B, C, D.2, and F.

§1119. Personnel Training

All generators shall institute a personnel training program as specified in LAC 33:V.1515. The training program should cover all portions of the facility that handle hazardous wastes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation. Refer to LAC 33:V.Chapter 15 responses submitted on June 1, 1998 for additional information regarding compliance with LAC 33:V.1515.

§1121. Spills

Any spilled material or material trapped in sumps that is a hazardous waste or that will be disposed of as a hazardous waste must be cleaned up in a timely manner.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation.

§1123. Imports of Foreign Hazardous Waste

- A. Any person who imports hazardous waste from a foreign country into the state of Louisiana must comply with this Chapter and the special requirements of LAC 33:V.1123.
- B. When importing hazardous waste from a foreign country into the state of Louisiana, a person must meet all the requirements of LAC 33:V.1107 for the manifest except that:
 - 1. the name and address of the foreign generator and the importer's name, address, and EPA identification number must replace the generator's name, address, and EPA identification number;
 - 2. the U.S. importer or his agent must sign and date the certification and obtain the signature of the initial transporter to replace the generator's signature on the certification statement;
 - 3. in the comment section (section J) of the manifest form, the importer must indicate the name of any transit countries with the corresponding ports and dates of entry and departure through which each waste type passed and the nature of

its handling while there, the point of entry and the date on which the waste entered the United States, and the date on which the Importation of Hazardous Waste Notification Form (HW-2) was mailed to the administrative authority; and

4. a copy of the Importation of Hazardous Waste Notification Form must accompany the manifest form.
- C. A person who imports hazardous waste from a foreign country into the state of Louisiana must obtain a manifest form from the administrative authority. The hazardous waste shipment must be accompanied by the manifest from its point of arrival in the United States to its final disposition in the state of Louisiana.
- D. Any person who imports hazardous waste from a foreign country into the state of Louisiana must prepare an Importation of Hazardous Waste Notification Form (HW-2) notifying the administrative authority of an intended import at least 30 days but not prior to one year before such waste is scheduled to enter the state of Louisiana. This notification form must be obtained from the administrative authority. The notification form must be signed by the importer and include the following information:
1. name, mailing address, telephone number, and EPA identification number of the importer;
 2. for each hazardous waste type:
 - a. a description of the hazardous waste and the EPA hazardous waste number (LAC 33:V.4901 and 4903), the United States Department of Transportation shipping name, the hazard class, and the ID number for each hazardous waste imported;
 - b. the estimated total quantity of the hazardous waste in units as specified in the instructions to the Uniform Hazardous Waste Manifest form (8700-22); and c. a description of the manner in which each hazardous waste type will be treated, stored, or disposed of in the state of Louisiana, e.g., incineration, land disposal, recycling;
 3. a description of the means by which the shipment of the hazardous waste will be transported, e.g., mode of transportation (air, highway, rail, water, etc.) and types of containers (drums, boxes, tanks, etc.); and
 4. the name of the U.S. port of entry with the corresponding date of entry and the nature of the handling of the waste from its point of entry into the U.S. until its final destination.
- E. Notification shall be sent to the administrative authority with "Attention: Notification to Import Foreign Hazardous Waste" prominently displayed on the front of the envelope. Such notices shall be sent by certified mail.
- F. Except for changes to the telephone number required by LAC 33:V.1123.D.1, decreases in the quantity indicated pursuant to LAC 33:V.1123.D.2.c, and changes to

the information required by LAC 33:V.1123.D.2.e, when conditions specified on the original notification change (including changes in the estimate of the quantity of hazardous waste specified in the original notification), the importer must provide the administrative authority with written notice of the change. Notice of such change must be submitted to the administrative authority prior to import into the state of Louisiana of the waste that is the subject of the change.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:20 (January 1996).

Response: Cytotec acknowledges the above citation.

§1125. Unmanifested Foreign Hazardous Waste

- A. Any person who imports foreign generated material that has not been classified as hazardous waste prior to entry into the state of Louisiana, but subsequently is determined to be hazardous waste, must immediately notify the administrative authority by telephone.
- B. Any person who imports foreign generated material that has not been classified as hazardous waste prior to entry into the state of Louisiana, but subsequently is determined to be hazardous must, within seven business days:
 - 1. file in writing an unmanifested waste report with the administrative authority which shall include;
 - a. the facility name and location;
 - b. the port of entry of the hazardous waste;
 - c. the date of entry of the hazardous waste;
 - d. clarification of existence or non-existence of an Importation of Hazardous Waste Notification Form (HW-2);
 - e. the name of the transporter from port of entry to the destination facility;
 - f. the vehicle numbers of the transporters; and
 - g. the date of transportation; and
 - 2. prepare a manifest and file a copy of the completed manifest for the unmanifested waste with the administrative authority. (The transporter's signature may be omitted from the manifest; however, the comment section (section J) of the manifest must explain why the signature was omitted and must detail the unmanifested waste circumstance.)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:21 (January 1996).

Response: Cytotec acknowledges the above citation.

Subchapter B. Transfrontier Shipments of Hazardous Waste

§1127. Transfrontier Shipments of Hazardous Waste for Recovery Within the OECD

A. Applicability

1. The requirements of this Subchapter apply to imports and exports of wastes that are considered hazardous under United States national procedures and are destined for recovery operations in the countries listed in LAC 33:V.1113.I.1.a. A waste is considered hazardous under United States national procedures if it meets the definition of hazardous waste in LAC 33:V.109 and is subject to either the manifesting requirements in LAC 33:V.1107 or to the universal waste management standards of LAC 33:V.Chapter 38.
2. Any person (notifier, consignee, or recovery facility operator) who mixes two or more wastes (including hazardous and nonhazardous wastes) or otherwise subjects two or more wastes (including hazardous and nonhazardous wastes) to physical or chemical transformation operations, and thereby creates a new hazardous waste, becomes a generator and assumes all subsequent generator duties under RCRA and any notifier duties, if applicable, under this Subchapter.

B. General Conditions

1. **Scope.** The level of control for exports and imports of waste is indicated by assignment of the waste to a green, amber, or red list and by United States national procedures as defined in Subsection A.1 of this Section. The green, amber, and red lists are incorporated by reference in LAC 33:V.110.A.16.
 - a. Wastes on the green list are subject to existing controls normally applied to commercial transactions, except as provided in the following:
 - i. green-list wastes that are considered hazardous under United States national procedures are subject to amber-list controls;
 - ii. green-list wastes that are sufficiently contaminated or mixed with amber-list wastes such that the waste or waste mixture is considered hazardous under United States national procedures are subject to amber-list controls;
 - iii. green-list wastes that are sufficiently contaminated or mixed with other wastes subject to red-list controls such that the waste or waste mixture is considered hazardous under United States national procedures must be handled in accordance with the red-list controls.
 - b. Wastes on the amber list that are considered hazardous under United States national procedures as defined in Subsection A.1 of this Section are subject to the amber-list controls of this Subchapter.
 - i. If amber-list wastes are sufficiently contaminated or mixed with other wastes subject to red-list controls such that the waste or waste mixture is considered hazardous under United States

national procedures, the wastes must be handled in accordance with the red-list controls.

- ii. Reserved
- c. Wastes on the red list that are considered hazardous under United States national procedures as defined in Subsection A.1 of this Section are subject to the red-list controls of this Subchapter.
Note: Some wastes on the amber or red lists are not listed or otherwise identified as hazardous under RCRA (e.g., polychlorinated biphenyls) and, therefore, are not subject to the amber-list or red-list controls of this Subchapter. Regardless of the status of the waste under RCRA, however, other federal environmental statutes (e.g., the Toxic Substances Control Act) may restrict certain waste imports or exports. Such restrictions continue to apply without regard to this Subchapter.
- d. Wastes not yet assigned to a list are eligible for transfrontier movements, as follows:
 - i. if such wastes are considered hazardous under United States national procedures as defined in Subsection A.1 of this Section, these wastes are subject to the red-list controls; or
 - ii. if such wastes are not considered hazardous under United States national procedures as defined in Subsection A.1 of this Section, such wastes may move as though they appeared on the green list.

2. General Conditions Applicable to Transfrontier Movements of Hazardous Waste

- a. The waste must be destined for recovery operations at a facility that, under applicable domestic law, is operating or is authorized to operate in the importing country.
- b. The transfrontier movement must be in compliance with applicable international transport agreements.
Note: These international agreements include, but are not limited to, the Chicago Convention (1944), ADR (1957), ADN (1970), MARPOL Convention (1973/1978), SOLAS Convention (1974), IMDG Code (1985), COTIF (1985), and RID (1985).
- c. Any transit of waste through a non-OECD member country must be conducted in compliance with all applicable international and national laws and regulations.

3. Provisions Relating to Re-export for Recovery to a Third Country

- a. Re-export of wastes subject to the amber-list control system from the United States, as the importing country, to a third country listed in LAC 33:V.1113.1.1.a may occur only after a notifier in the United States provides notification to and obtains consent of the competent authorities in the third country, the original exporting country, and new transit countries. The notification must comply with the notice and consent procedures in Subsection C of this Section for all concerned countries, and the original exporting country. The competent authorities of the original exporting

country as well as the competent authorities of all other concerned countries have 30 days to object to the proposed movement.

- i. The 30-day period begins once the competent authorities of both the initial exporting country and new importing country issue Acknowledgements of Receipt of the notification.
 - ii. The transfrontier movement may commence if no objection has been lodged after the 30-day period has passed or immediately after written consent is received from all relevant OECD importing and transit countries.
- b. Re-export of wastes subject to the red-list control system from the original importing country to a third country listed in LAC 33:V.1113.I.1.a may occur only following notification of the competent authorities of the third country, the original exporting country, and new transit countries by a notifier in the original importing country in accordance with Subsection C of this Section. The transfrontier movement may not proceed until receipt by the original importing country of written consent from the competent authorities of the third country, the original exporting country, and new transit countries.
- c. In the case of re-export of amber-list or red-list wastes to a country other than those in LAC 33:V.1113.I.1.a, notification to and consent of the competent authorities of the original OECD member country of export and any OECD member countries of transit is required as specified in Subsection B.3.a-b of this Section in addition to compliance with all international agreements and arrangements to which the first importing OECD member country is a party and all applicable regulatory requirements for exports from the first importing country.

C. Notification and Consent

1. **Applicability.** Consent must be obtained from the competent authorities of the relevant OECD importing and transit countries prior to exporting hazardous waste destined for recovery operations subject to this Subchapter. Hazardous wastes subject to amber-list controls are subject to the requirements of Subsection C.2 of this Section; hazardous wastes subject to red-list controls are subject to the requirements of Subsection C.3 of this Section; and wastes not identified on any list are subject to the requirements of Subsection C.4 of this Section.
2. **Amber-List Wastes.** The export from the United States of hazardous wastes as described in Subsection A.1 of this Section that appear on the amber list is prohibited unless the notification and consent requirements of this Subsection are met.
 - a. **Transactions Requiring Specific Consent**
 - i. **Notification.** At least 45 days prior to commencement of the transfrontier movement, the notifier must provide written notification in English of the proposed transfrontier movement to the Office of Enforcement and Compliance Assurance, Office of Compliance,

Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, with the words "Attention: OECD Export Notification" prominently displayed on the envelope. This notification must include all of the information identified in Subsection C.5 of this Section. In cases where wastes having similar physical and chemical characteristics, the same United Nations classification, and the same RCRA waste codes are to be sent periodically to the same recovery facility by the same notifier, the notifier may submit one notification of intent to export these wastes in multiple shipments during a period of up to one year.

- ii. Tacit Consent. If no objection has been lodged by any concerned country (i.e., exporting, importing, or transit countries) to a notification provided pursuant to Subsection C.2.a.i of this Section within 30 days after the date of issuance of the Acknowledgment of Receipt of notification by the competent authority of the importing country, the transfrontier movement may commence. Tacit consent expires one calendar year after the close of the 30-day period; renotification and renewal of all consents are required for exports after that date.
 - iii. Written Consent. If the competent authorities of all the relevant OECD importing and transit countries provide written consent in a period less than 30 days, the transfrontier movement may commence immediately after all necessary consents are received. Written consent expires for each relevant OECD importing and transit country one calendar year after the date of that country's consent unless otherwise specified; renotification and renewal of each expired consent is required for exports after that date.
- b. Shipments to Facilities Preapproved by the Competent Authorities of the Importing Countries to Accept Specific Wastes for Recovery
- i. The notifier must provide EPA the information identified in Subsection C.5 of this Section, in English, at least 10 days in advance of commencing shipment to a preapproved facility. The notification should indicate that the recovery facility is preapproved and may apply to a single specific shipment or to multiple shipments as described in Subsection C.2.a.i of this Section. This information must be sent to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, with the words "OECD Export Notification- Preapproved Facility" prominently displayed on the envelope.
 - ii. Shipments may commence after the notification required in Subsection C.2.a.i of this Section has been received by the competent authorities of all concerned countries, unless the notifier has received information indicating that the competent authorities of one or more concerned countries objects to the shipment.

3. **Red-List Wastes.** The export from the United States of hazardous wastes as described in Subsection A.1 of this Section that appear on the red list is prohibited unless notice is given in accordance with Subsection C.2.a.i of this Section and the notifier receives written consent from the importing country and any transit countries prior to commencement of the transfrontier movement.
4. **Unlisted Wastes.** Wastes not assigned to the green, amber, or red list that are considered hazardous under United States national procedures as defined in Subsection A.1 of this Section are subject to the notification and consent requirements established for red-list wastes in accordance with Subsection C.3 of this Section. Unlisted wastes that are not considered hazardous under United States national procedures as defined in Subsection A.1 of this Section are not subject to amber or red controls when exported or imported.
5. **Notification Information.** Notifications submitted under this Section must include:
 - a. serial number or other accepted identifier of the notification form;
 - b. notifier name and EPA identification number (if applicable), address, and telephone and telefax numbers;
 - c. importing recovery facility name, address, telephone and telefax numbers, and technologies employed;
 - d. consignee name (if not the owner or operator of the recovery facility), address, and telephone and telefax numbers; whether the consignee will engage in waste exchange or storage prior to delivering the waste to the final recovery facility and identification of recovery operations to be employed at the final recovery facility;
 - e. intended transporters and/or their agents;
 - f. country of export and relevant competent authority and point of departure;
 - g. countries of transit and relevant competent authorities and points of entry and departure;
 - h. country of import and relevant competent authority and point of entry;
 - i. statement of whether the notification is a single notification or a general notification. If general, include the period of validity requested;
 - j. date foreseen for commencement of transfrontier movement;
 - k. designation of waste type(s) from the appropriate list (amber or red and waste list code), descriptions of each waste type, estimated total quantity of each, RCRA waste code, and United Nations number for each waste type; and
 - l. certification/declaration signed by the notifier that states:
"I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance or other financial guarantees are or shall be in force covering the transfrontier movement."

Name: _____
Signature: _____
Date: _____

Note: The United States does not currently require financial assurance; however, United States exporters may be asked by other governments to provide and certify to such assurance as a condition of obtaining consent to a proposed movement.

D. Tracking Document

1. All United States parties subject to the contract provisions of Subsection E of this Section must ensure that a tracking document meeting the conditions of Subsection D.2 of this Section accompanies each transfrontier shipment of wastes subject to amber-list or red-list controls from the initiation of the shipment until it reaches the final recovery facility, including cases in which the waste is stored and/or exchanged by the consignee prior to shipment to the final recovery facility, except as provided in Subsection D.1.a-b of this Section.
 - a. For shipments of hazardous waste within the United States solely by water (bulk shipments only) the generator must forward the tracking document with the manifest to the last water (bulk shipment) transporter to handle the waste in the United States if exported by water (in accordance with the manifest routing procedures in LAC 33:V.1107.D.3).
 - b. For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator must forward the tracking document with the manifest (in accordance with the routing procedures for the manifest in LAC 33:V.1107.D.4) to the next nonrail transporter, if any, or the last rail transporter to handle the waste in the United States if exported by rail.
2. The tracking document must include all information required under Subsection C of this Section for notification and the following:
 - a. date shipment commenced;
 - b. name (if not notifier), address, and telephone and telefax numbers of primary exporter;
 - c. company name and EPA ID number of all transporters;
 - d. identification (license, registered name, or registration number) of means of transport, including types of packaging;
 - e. any special precautions to be taken by transporters;
 - f. certification/declaration signed by notifier that no objection to the shipment has been lodged as follows:

"I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally enforceable written contractual obligations have been entered into, that any applicable insurance or other financial guarantees are or shall be in force covering the transfrontier movement, and that:

[List the following sentence that is applicable]

 1. all necessary consents have been received; or

2. the shipment is directed at a recovery facility within the OECD area and no objection has been received from any of the concerned countries within the 30 day tacit consent period; or
3. the shipment is directed at a recovery facility preauthorized for that type of waste within the OECD area; such an authorization has not been revoked, and no objection has been received from any of the concerned countries."

Name: _____

Signature: _____

Date: _____

and

- g. appropriate signatures for each custody transfer (e.g. transporter, consignee, and owner or operator of the recovery facility).
3. Notifiers also must comply with the special manifest requirements of LAC 33:V.1113.E.1, 2, 3, 5, and 9; and consignees must comply with the import requirements of LAC 33:V. 1123.
 4. Each United States person that has physical custody of the waste from the time the movement commences until it arrives at the recovery facility must sign the tracking document (e.g. transporter, consignee, and owner or operator of the recovery facility).
 5. Within three working days of the receipt of imports subject to this Subchapter, the owner or operator of the United States recovery facility must send signed copies of the tracking document to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the competent authorities of the exporting and transit countries.

E. Contracts

1. Transfrontier movements of hazardous wastes subject to amber or red control procedures are prohibited unless they occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements (when the movement occurs between parties controlled by the same corporate or legal entity). Such contracts or equivalent arrangements must be executed by the notifier and the owner or operator of the recovery facility and must specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of this Section only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangement.
2. Contracts or equivalent arrangements must specify the name and EPA ID number, where available, of:
 - a. the generator of each type of waste;

- b. each person who will have physical custody of the wastes;
 - c. each person who will have legal control of the wastes; and
 - d. the recovery facility.
3. Contracts or equivalent arrangements must specify which party to the contract will assume responsibility for alternate management of the wastes if its disposition cannot be carried out as described in the notification of intent to export. In such cases, contracts must specify that:
- a. the person having actual possession or physical control over the wastes will immediately inform the notifier and the competent authorities of the exporting and importing countries and, if the wastes are located in a country of transit, the competent authorities of that country; and
 - b. the person specified in the contract will assume responsibility for the adequate management of the wastes in compliance with applicable laws and regulations including, if necessary, arranging their return to the original country of export.
4. Contracts must specify that the consignee will provide the notification required in Subsection B.3 of this Section prior to re-export of controlled wastes to a third country.
5. Contracts or equivalent arrangements must include provisions for financial guarantees, if required by the competent authorities of any concerned country, in accordance with applicable national or international law requirements.
Note: Financial guarantees so required are intended to provide for alternate recycling, disposal, or other means of sound management of the wastes in cases where arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The United States does not require such financial guarantees at this time; however, some OECD countries do. It is the responsibility of the notifier to ascertain and comply with such requirements; in some cases, transporters or consignees may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.
6. Contracts or equivalent arrangements must contain provisions requiring each contracting party to comply with all applicable requirements of this Subchapter. 7. Upon request by EPA, United States notifiers, consignees, or recovery facilities must submit to EPA copies of contracts, chain of contracts, or equivalent arrangements (when the movement occurs between parties controlled by the same corporate or legal entity). Information contained in the contracts or equivalent arrangements for which a claim of confidentiality is asserted in accordance with 40 CFR 2.203(b) will be treated as confidential and will be disclosed by EPA only as provided in 40 CFR 260.2.
Note: Although the United States does not require routine submission of contracts at this time, OECD Council Decision C(92)39/FINAL allows members to impose such requirements. When other OECD countries require submission of partial or complete copies of the contract as a condition to granting consent to proposed movements, EPA will request the required information; absent

submission of such information, some OECD countries may deny consent for the proposed movement.

F. Provisions Relating to Recognized Traders

1. A recognized trader who takes physical custody of a waste and conducts recovery operations (including storage prior to recovery) is acting as the owner or operator of a recovery facility and must be so authorized in accordance with all applicable federal laws.
2. A recognized trader acting as a notifier or consignee for transfrontier shipments of waste must comply with all the requirements of this Subchapter associated with being a notifier or consignee.

G. Reporting and Recordkeeping

1. **Annual Reports.** For all waste movements subject to this Subchapter, persons (e.g., notifiers, recognized traders) who meet the definition of primary exporter in LAC 33:V.109 shall file an annual report with the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, no later than March 1 of each year summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year. (If the primary exporter is required to file an annual report for waste exports that are not covered under this Subchapter, he may include all export information in one report provided the information required by this Subsection on exports of waste destined for recovery within the designated OECD member countries is contained in a separate Section.) Such reports shall include the following:
 - a. the EPA identification number, name, and mailing and site address of the notifier filing the report;
 - b. the calendar year covered by the report;
 - c. the name and site address of each final recovery facility;
 - d. by final recovery facility, for each hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number (from LAC 33:V.Chapter 49), designation of waste type(s) from OECD waste lists and applicable waste code from the OECD lists, the DOT hazard class, the name and U.S. EPA identification number (where applicable) for each transporter used, the total amount of hazardous waste shipped pursuant to this Subchapter, and the number of shipments pursuant to each notification;
 - e. in even numbered years, for each hazardous waste exported except for hazardous waste produced by exporters of greater than 100kg but less than 1000kg in a calendar month and except for hazardous waste for which information was already provided pursuant to LAC 33:V.1111.B:
 - i. a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

- ii. a description of the changes in volume and toxicity of the waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984; and
 - f. a certification signed by the person acting as primary exporter that states:
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."
- 2. **Exception Reports.** Any person who meets the definition of primary exporter in LAC 33:V.109 must file an exception report, in lieu of the requirements of LAC 33:V.1111.C, with the administrative authority if any of the following occurs:
 - a. he has not received a copy of the tracking documentation signed by the transporter stating point of departure of the waste from the United States within 45 days from the date it was accepted by the initial transporter;
 - b. within 90 days from the date the waste was accepted by the initial transporter, the notifier has not received written confirmation from the recovery facility that the hazardous waste was received; or
 - c. the waste is returned to the United States.
- 3. **Recordkeeping**
 - a. Persons who meet the definition of primary exporter in LAC 33:V.109 shall keep the following records:
 - i. a copy of each notification of intent to export and all written consents obtained from the competent authorities of concerned countries for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;
 - ii. a copy of each annual report for a period of at least three years from the due date of the report; and
 - iii. a copy of any exception reports and a copy of each confirmation of delivery (i.e., tracking documentation) sent by the recovery facility to the notifier for at least three years from the date the hazardous waste was accepted by the initial transporter or received by the recovery facility, whichever is applicable.
 - b. The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the administrative authority.

H. Preapproval for United States Recovery Facilities- Reserved

I. OECD Waste Lists

1. General. For the purposes of this Subchapter, a waste is considered hazardous under United States national procedures, and hence subject to this Subchapter, if the waste:
 - a. meets the definition of hazardous waste in LAC 33:V.109; and
 - b. is subject to either the manifesting requirements of this Chapter or to the universal waste management standards of LAC 33:V.Chapter 38.
2. If a waste is hazardous under Subsection I.1.a of this Section and it appears on the amber or red list, it is subject to amber-list or red-list requirements respectively.
3. If a waste is hazardous under Subsection I.1.a of this Section and it does not appear on either the amber or red list, it is subject to red-list requirements.
4. The appropriate control procedures for hazardous wastes and hazardous waste mixtures are addressed in Subsection B of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:661(April 1998).

Response: Cytac acknowledges the above citation.

Chapter 13 Transporters

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 13. Transporters

§1301. Applicability

- A. LAC 33:V.Chapter 13 establishes standards which apply to persons transporting hazardous waste within the state of Louisiana if the transportation requires a manifest under LAC 33:V.Chapter 9.
- B. The regulations set forth in LAC 33:V.Chapters 11 and 13 establish the responsibilities of generators and transporters in the handling, transportation and management of hazardous waste. In these regulations, Louisiana has expressly adopted certain regulations of the Department of Public Safety (DPS). These regulations concern, among other things, labeling, marking, placarding, using proper containers and reporting discharges. The department has adopted these regulations in order to satisfy its statutory obligation to promulgate regulations which are necessary to protect human health and the environment in the transportation of hazardous waste. The department adoption of these DPS regulations ensures consistency with the requirements of DPS and thus avoids the establishment of duplicative or conflicting requirements with respect to these matters.
- C. Transporters of hazardous waste are cautioned that DPS's regulations are fully applicable to their activities and enforceable by DPS. The department and DPS worked together to develop standards for transporters of hazardous waste in order to avoid conflicting requirements. Regardless of DPS's action, the department retains its authority to enforce these regulations.
- D. This Chapter does not apply to:
 - 1. on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities; and
 - 2. any person who offers for transportation or who transports household refuse or household septic tank pumping from the site where it was generated, if those materials are not transported with any other hazardous waste.
- E. A transporter of hazardous waste must also comply with LAC 33:V.Chapter 11 if he transports hazardous waste into Louisiana from abroad or mixes hazardous wastes of different United States Department of Transportation shipping descriptions by placing them into a single container.
- F. A transporter of hazardous waste subject to the manifesting requirements of LAC 33:V.Chapter 11 or subject to the waste management standards of LAC 33:V.Chapter 38 that is being imported from or exported to any of the countries listed in LAC 33:V.1113.I.1.a for purposes of recovery is subject to this Chapter and to all other

relevant requirements of LAC 33:V.Chapter 11.Subchapter B including, but not limited to, LAC 33:V.1127.D for tracking documents.

- G. The regulations in this Chapter do not apply to transportation during an explosives or munitions emergency response conducted in accordance with LAC 33:V.1501.C.7.a.iv or d or 4307 and 305.C.12 or 13.
- H. LAC 33:V.5305 identifies how the requirements of this Chapter apply to military munitions classified as solid waste under LAC 33:V.5303.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:666 (April 1998), LR 24:1694 (September 1998).

Response: Cytec acknowledges the above citation. In general, the regulations of LAC 33:V.Chapter 13 do not apply to Cytec because Cytec is not a transporter of hazardous waste.

§1303. EPA Identification Number

A transporter must not transport hazardous wastes without having received an EPA identification number.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984).

Response: Cytec acknowledges the above citation.

§1305. Transfer Facility Requirements

- A. A transporter who stores manifested shipments of hazardous waste at a transfer facility for more than 10 days is considered a storage facility and is required to obtain a permit in compliance with the conditions of these regulations.
- B. If hazardous wastes from different generators or separate wastes from the same generator become mixed after being accepted by the transporter, the transporter shall also comply with applicable federal or state generator standards unless the transporter shows that the information on the manifests still identifies the hazardous waste.
- C. A transporter storing manifested shipments of hazardous waste in containers meeting the requirements applicable to the LDPS regulations on packaging under LAC 33:V.Subpart 2.Chapter 101 at a transfer facility for a period of 10 days or less is not subject to regulation under LAC 33:V.Chapters 1-7, 15-29, 31-38, and 43 with respect to

the storage of those wastes, except as required to obtain approval by the administrative authority.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), repromulgated LR 18:1256 (November 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1511 (November 1997), LR 24:1694 (September 1998).

Response: Cytec acknowledges the above citation.

§1307. The Manifest System

- A. A transporter may not accept hazardous waste from a generator or another transporter unless it is accompanied by a manifest, signed by the generator in accordance with the provisions of LAC 33:V.1107. The transportation of any hazardous wastes without a manifest shall be deemed a violation of these regulations and the Act. In the case of exports other than those subject to LAC 33:V.Chapter 11.Subchapter B, a transporter may not accept such waste from a primary exporter or other person:
1. if he knows the shipment does not conform to the EPA Acknowledgment of Consent; and
 2. unless, in addition to a manifest signed in accordance with LAC 33:V.1107, such waste is also accompanied by an EPA Acknowledgment of Consent which, except for shipment by rail, is attached to the manifest (or shipping paper for exports by water [bulk shipment]). For exports of hazardous waste subject to the requirements of LAC 33:V.Chapter 11.Subchapter B, a transporter may not accept hazardous waste without a tracking document that includes all information required by LAC 33:V.1127.D.
- B. Before transporting the hazardous waste, the transporter must sign and date the manifest acknowledging acceptance of the hazardous waste from the generator or other transporter. The transporter must return a signed copy to the generator or other transporter before leaving the generator's property or other transporter's facility.
- C. The transporter must ensure that the manifest accompanies the hazardous waste, except as provided for bulk water or rail transport in LAC 33:V.1307.E and F. In the case of exports, the transporter must ensure that a copy of the EPA Acknowledgment of Consent also accompanies the hazardous waste.
- D. A transporter who delivers a hazardous waste to another transporter or to the designated facility must:
1. obtain the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest;
 2. retain one copy of the manifest in accordance with LAC 33:V.1311; and

3. give the remaining copies of the manifest to the accepting transporter or designated facility.
- E. The requirements of LAC 33:V.1307.C, D, and F do not apply to water (bulk shipment) transporters if:
1. the hazardous waste is delivered by water (bulk shipment) to the designated facility;
 2. a shipping paper containing all the information required on the manifest (excluding the EPA identification number, generator certification and signature) and, for exports, an EPA Acknowledgment of Consent accompanies the hazardous waste;
 3. the delivering transporter obtains the date of delivery and handwritten signature of the owner and operator of the designated facility on either the manifest or the shipping paper;
 4. the person delivering the hazardous waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility; and
 5. a copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with LAC 33:V.1311.B.
- F. For shipments involving rail transportation, the requirements of LAC 33:V.1307.C, D, and E do not apply and the following requirements do apply.
1. When accepting hazardous waste from a non-rail transporter, the initial rail transporter must:
 - a. sign and date the manifest acknowledging acceptance of the hazardous waste;
 - b. return a signed copy of the manifest to the non-rail transporter;
 - c. forward at least three copies of the manifest to:
 - i. the next non-rail transporter, if any;
 - ii. the designated facility, if the shipment is delivered to that facility by rail; or
 - iii. the last rail transporter designated to handle the waste in the United States;
 - d. retain one copy of the manifest and rail shipping paper in accordance with LAC 33:V.1311;
 2. Rail transporters must ensure that a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) and, for exports, an EPA Acknowledgment of Consent accompanies the hazardous waste at all times.

[Note: Intermediate rail transporters are not required to sign either the manifest or shipping paper.];

3. When delivering hazardous waste to the designated facility, a rail transporter must:
 - a. obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper (if the manifest has not been received by the facility); and
 - b. retain a copy of the manifest or signed shipping paper in accordance with LAC 33:V.1311;
 4. When delivering hazardous waste to a non-rail transporter, a rail transporter must:
 - a. obtain the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and
 - b. retain a copy of the manifest in accordance with LAC 33:V.1311; and
 5. Before accepting hazardous waste from a rail transporter, a non-rail transporter must sign and date the manifest or the shipping paper and provide a copy to the rail transporter.
- G. Transporters who transport hazardous waste out of the United States must:
1. indicate on the manifest the date the hazardous waste left the United States;
 2. sign the manifest and retain one copy in accordance with LAC 33:V.1311.D; and
 3. return a signed copy of the manifest to the generator; and
 4. give a copy of the manifest to a United States Customs official at the point of departure from the United States.
- H. Transporters who pick up hazardous waste from generators exempted by LAC 33:V.105.D are responsible for the generator manifest requirements. Transporters may use a single manifest for shipments containing waste from several generators if all the generators are listed, all the wastes are accurately described, the wastes transported in the same shipment are compatible, and are labeled as required in this Chapter, LAC 33:V.1107.A.5 and 1109.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:220 (March 1990), LR 18:1256 (November 1992), LR 20:1109 (October 1994), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:666 (April 1998).

Response: Cytec acknowledges the above citation.

§1309. Compliance with the Manifest

- A. The transporter must deliver the entire quantity of hazardous waste which he has accepted from a generator or a transporter to:
1. the designated facility listed on the manifest;
 2. the alternate designated facility, if the hazardous waste cannot be delivered to the designated facility because an emergency prevents delivery, and such action is approved by the administrative authority;
 3. the next designated transporter; or
 4. the place outside the United States designated by the generator. [Note: No person may deliver a hazardous waste to a place other than the permitted facility shown on the manifest.]
- B. If the hazardous waste cannot be delivered in accordance with LAC 33:V.1309.A, the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.
- C. A transporter shall not transport a shipment of hazardous waste in containers unless each hazardous waste container is marked and labeled as required in LAC 33:V.1109.B and C. If the label is lost or detached, the transporter shall replace it based on the information taken from the manifest for the shipment.
- D. A transporter shall not transport a container that is leaking or appears to be damaged, except to the nearest place where the transport vehicle can be safely positioned without unnecessarily endangering other transport vehicles or the environment. The transporter will then make the repairs necessary to remedy the unsafe condition.
- E. A transporter shall not accept hazardous wastes consisting of a material or mixtures of materials prohibited under DPS regulations.
- F. Transporters will pick up and ship only those wastes which are properly prepared for shipment (see LAC 33:V.1109), and which are accompanied by a properly filled out manifest, and appear to be the hazardous waste described on the manifest. If the transporter notices any irregularities or rejects a shipment for any reason, he must notify the department as soon as possible, but no later than the next working day.
- G. Except as provided in LAC 33:V.919 and 1309.F, transporters are required to report to the department any irregularities between the wastes received and the waste described on the manifest, or any other irregularities, within five days.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation.

§1311. Recordkeeping

- A. A transporter of hazardous waste must keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.
- B. For shipments delivered to the designated facility by water (bulk shipment), each water (bulk shipment) transporter must retain a copy of the shipping paper containing all the information required in LAC 33:V.1307.E.2 for a period of three years from the date the hazardous waste was accepted by the initial transporter.
- C. For shipments of hazardous waste by rail:
 - 1. the initial rail transporter must keep a copy of the manifest and shipping paper with all the information required in LAC 33:V.1307.F.2 for a period of three years from the date the hazardous waste was accepted by the initial transporter; and
 - 2. the final rail transporter must keep a copy of the signed manifest (or the shipping paper if signed by the designated facility in lieu of the manifest) for a period of three years from the date the hazardous waste was accepted by the initial transporter. [Note: Intermediate rail transporters are not required to keep records pursuant to these regulations.]
- D. A transporter who transports hazardous waste out of the United States must keep a copy of the manifest, indicating that the hazardous waste left the United States, for a period of three years from the date the hazardous waste was accepted by the initial transporter.
- E. The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the administrative authority.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984).

Response: Cytec acknowledges the above citation.

§1313. Financial Responsibility

- A. Each transporter of hazardous wastes shall acquire continuous coverage for all of its transport vehicles regulated by these rules and regulations at a minimum coverage of \$300,000 per vehicle public liability and \$200,000 per vehicle damage.

- B. The financial responsibility required by this Section may be established by any one or a combination of the following:
1. evidence of liability insurance;
 2. self-insurance with a level not more than 20 percent of equity; or
 3. other evidence of financial responsibility acceptable to the secretary of public safety.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytac acknowledges the above citation.

§1315. Spills

- A. Contingency Plan. Each transporter shall prepare a spills contingency plan. The spill contingency plan must include the information specified in LAC 33:V.1513.B (except 1513.B.1), C, E, and F. The contingency plan shall include a section describing emergency response procedures as specified in LAC 33:V.1513.F.
- B. Personnel Training. All transporters shall institute a personnel training program as specified in LAC 33:V.1515. This program shall apply to all personnel who would reasonably be expected to handle hazardous waste containers or tanks or deal with spills (e.g., drivers and dispatchers).
- C. In the event of a discharge of hazardous waste during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities and dike the discharge area).
- D. If a discharge of hazardous waste occurs during transportation and an official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers.
- E. An air, rail, highway, or water transporter who has discharged hazardous waste must:
1. give notice, if required by 49 CFR 171.15, to the National Response Center (800-424-8802 or 202-426-2675); and
 2. report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

- F. A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 CFR 153.203 for oil and hazardous substance.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984).

Response: Cytec acknowledges the above citation.

§1317. Discharge Cleanup

A transporter must clean up any hazardous waste discharge that occurs during transportation and take such action as may be required by the administrative authority so that the hazardous waste discharge no longer presents a hazard to human health or the environment. The transporter becomes the generator of the waste for the purpose of cleanup, unless such responsibility is transferred to the owner of the material, or other responsible parties.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation.

§1319. Use and Reuse of Containers

- A. A container may be used for the shipment of hazardous waste only to the extent permitted under the regulations of the Department of Public Safety. A permitted container may be reused only as provided in LAC 33:V.1319.B.
- B. A package marked "NRC" or "STC" according to the specification requirements in the regulations of the Department of Public Safety may be reused only one time for the shipment of hazardous wastes, under the following conditions:
1. the material is packaged, marked, and labeled in accordance with the regulations of the Department of Public Safety;
 2. transportation is by highway only;
 3. the package is transported only after being sealed for at least 24 hours, is inspected for leakage immediately before being transported; or
 4. the package is loaded by the shipper and unloaded by the consignee, unless the motor carrier is a private or contract carrier.
- C. Any container, including tank trucks, used to transport waste shall be cleaned before leaving the disposal site. Such cleaning should be by a method or methods necessary to remove the hazardous constituents to a level which will not cause an incompatibility

with any subsequent shipment and/or render any future load hazardous. All material resulting from such cleaning shall be considered a hazardous waste unless otherwise approved by the administrative authority.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation.

§1321. Hazardous Waste that is also a Hazardous Material

If a hazardous waste, as defined in these rules and regulations, also meets the definition of hazardous material, the regulations of the Department of Public Safety also apply.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984)

Response: Cytec acknowledges the above citation.

§1323. Vehicle Markings and Placards

A. Markings. No person may transport a hazardous waste unless the transport vehicle is marked to display:

1. the name or trademark of the carrier operating the vehicle;
2. the city or place in which the carrier has its principal office or in which the vehicle is customarily based; and
3. the name of the person operating the vehicle. The name of a person other than the operating carrier may appear on the vehicle as long as the words "operated by" immediately precedes the information required by LAC 33:V.1323.A.1 and 2: (Other identifying information may be displayed on the vehicle if it is not inconsistent with the information required by this Paragraph.)

B. The marking required by LAC 33:V.1323.A must:

1. appear on both sides of the vehicle;
2. be in letters that contrast sharply in color with the background;
3. be readily legible during daylight hours from a distance of at least 50 feet while the vehicle is stationary; and
4. be maintained in a manner that retains the legibility required by LAC 33:V.1323.B. (The marking may be a removable device.)

- C. Placarding. A transporter may not move a transport vehicle containing a hazardous waste which is also a hazardous material unless the vehicle is placarded with placards in accordance with the regulations of the Department of Public Safety or such other regulations as may be prescribed by the secretary of public safety for placarding vehicles carrying a hazardous material.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation.

Chapter 17 Air Emission Standards

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 17. Air Emission Standards

§1701. Applicability

The regulations in this Chapter apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in LAC 33:V.1501 and 1705).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation.

§1703. Definitions

As used in this Chapter, all terms not defined herein shall have the meanings given them in LAC 33:V.109.

Air Stripping Operation—a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

Average Volatile Organic Concentration or Average VO Concentration—the mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of LAC 33:V.4727.

Bottoms Receiver—a container or tank used to receive and collect the heavier bottoms fractions of the distillation feedstream that remain in the liquid phase.

Closed-Vent System—a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

Closure Device—a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover such that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Condenser—a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

Connector—flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, "connector" means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

Continuous Recorder—a data-recording device recording instantaneous data values at least every 15 minutes, or more frequently if reasonably available technology exists which will achieve increased recording frequency.

Continuous Seal— a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

Control Device—an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (e.g., a primary condenser on a solvent recovery unit) is not a control device.

Control Device Shutdown—the cessation of operation of a control device for any purpose.

Cover— a device that provides a continuous barrier over the hazardous waste managed in a unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings (such as access hatches, sampling ports, gauge wells) that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit or a cover may be formed by structural features permanently integrated into the design of the unit.

Distillate Receiver—a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

Distillation Operation—an operation, either batch or continuous, separating one or more feedstream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feedstream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

Double Block and Bleed System—two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Enclosure—a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.

Equipment—each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange, and any control devices or systems required by this Chapter.

External Floating Roof— a pontoon-type or double-deck type cover that rests on the surface of the material managed in a tank with no fixed roof.

First Attempt at Repair—to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

Fixed Roof—a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the material managed in the unit.

Flame Zone—the portion of the combustion chamber in a boiler occupied by the flame envelope.

Floating Membrane Cover— a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

Floating Roof—a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the material being contained, and is equipped with a continuous seal.

Flow Indicator—a device that indicates whether gas flow is present in a vent stream.

Fractionation Operation—a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

Hard-Piping—pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

Hazardous Waste Management Unit Shutdown—a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than 24 hours or a scheduled, routine work practice such as cessation of operation on a holiday or weekend is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

Hot Well—a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

In Gas/Vapor Service—a piece of equipment that contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

In Heavy Liquid Service—a piece of equipment that is not in gas/vapor service or in light liquid service.

In Light Liquid Service—a piece of equipment that contains or contacts a waste stream where the vapor pressure of one or more of the components in the stream is greater than 0.3 kilopascals (kPa) at 20 C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

In Light Material Service—the container is used to manage a material for which both of the following conditions apply: the vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20°C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight.

In Situ Sampling Systems—nonextractive samplers or in-line samplers.

Internal Floating Roof—a cover that rests or floats on the material surface (but not necessarily in complete contact with it) inside a tank that has a fixed roof.

In Vacuum Service—equipment operating at an internal pressure that is at least 5 kPa below ambient pressure.

Liquid-Mounted Seal—a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof continuously around the circumference of the tank.

Malfunction—any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Maximum Organic Vapor Pressure—the sum of the individual organic constituent partial pressures exerted by the material contained in a tank at the maximum vapor pressure-causing conditions (e.g., temperature, agitation, pH effects of combining wastes, etc.) reasonably expected to occur in the tank. For the purpose of this Chapter, maximum organic vapor pressure is determined using the procedures specified in LAC 33:V.4727.

Metallic Shoe Seal—a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

No Detectable Organic Emissions—no escape of organics to the atmosphere as determined using the procedure specified in LAC 33:V.4727.

Open-Ended Valve or Line—any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Point of Waste Origination—as follows:

- a. when the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as defined in LAC 33:V.109; or
[Note: In this case, this term is being used in a manner similar to the use of the term "point of generation" in air standards established for waste management operations under authority of the Clean Air Act in 40 CFR parts 60, 61, and 63].
- b. when the facility owner and operator are not the generator of the hazardous waste, point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

Point of Waste Treatment—the point where a hazardous waste to be treated in accordance with LAC 33:V.4725 exits the treatment process. Any waste determination shall be made before the waste is conveyed, handled, or otherwise managed in a manner that allows the waste to volatilize to the atmosphere.

Pressure Release—the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

Process Heater—a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

Process Vent—any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

Repaired—equipment is adjusted, or otherwise altered, to eliminate a leak.

Safety Device—a closure device, such as a pressure relief valve, frangible disc, fusible plug, or any other type of device, which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this Chapter, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

Sensor—a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

Separator Tank—a device used for separation of two immiscible liquids.

Single-Seal System—a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

Solvent Extraction Operation—an operation or method of separation in which a solid or solution is contacted with a liquid solvent (the two being mutually insoluble) to preferentially dissolve and transfer one or more components into the solvent.

Start-Up—the setting in operation of a hazardous waste management unit or control device for any purpose.

Steam Stripping Operation—a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

Surge Control Tank—a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

Thin-Film Evaporation Operation—a distillation operation that employs a heating surface consisting of a large-diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

Vapor Incinerator—any enclosed combustion device that is used for destroying organic compound vapors and does not extract energy in the form of steam or process heat.

Vapor-Mounted Seal—a continuous seal that is mounted such that there is a vapor space between the hazardous waste in the unit and the bottom of the seal.

Vented—discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (working losses) or by natural means such as diurnal temperature changes.

Volatile Organic Concentration or VO Concentration— the fraction by weight of the volatile organic compounds contained in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement or by knowledge of the waste in accordance with the requirements of LAC 33:V.4727. For the purpose of determining the VO concentration of a hazardous waste, organic compounds with a Henry's law constant value of at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m) at 25°C must be included. Appendix Table 1 of this Chapter presents a list of compounds known to have a Henry's law constant value less than the cutoff level.

Waste Determination—performing all applicable procedures in accordance with the requirements of LAC 33:V.4727 to determine whether a hazardous waste meets standards specified in this Chapter. Examples of a waste determination include performing the procedures in accordance with the requirements of LAC 33:V.4727 to determine the average VO concentration of a hazardous waste at the point of waste origination; the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste; the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

Waste Stabilization Process— any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste,

Physical/Chemical Methods," EPA Publication Number SW-846, Third Edition, September 1986, as amended by Update I, November 15, 1992 (incorporated by reference—refer to LAC 33:V.110). A waste stabilization process includes mixing the hazardous waste with binders or other materials and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification." This does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1696 (September 1998).

Response: Cytec acknowledges the above citation.

Subchapter A. Process Vents

§1705. Applicability

The regulations in this Subchapter apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in LAC 33:V.1501).

- A. Except for LAC 33:V.1711.D and E, this Subchapter applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 parts per million by weight (ppmw), if these operations are conducted in one of the following:
1. a unit that is subject to the permitting requirements of LAC 33:V.Chapters 3, 5, 7, 31, and 43;
 2. a unit (including a hazardous waste recycling unit) that is not exempt from the permitting requirements under LAC 33:V.1109.E (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located on a hazardous waste management facility otherwise subject to the permitting requirements of LAC 33:V.Chapters 3, 5, 7, 31, and 43; or
 3. a unit that is exempt from permitting under the provisions of LAC 33:V.1109.E (i.e., a 90-day tank or container).
- B. If the owner or operator of process vents subject to the requirements of LAC 33:V.1707-1715 has received a permit under LAC 33:V.Subpart 1 prior to December 21, 1990, the requirements of LAC 33:V.1707-1715 must be incorporated when the permit is reissued under LAC 33:V.705 or reviewed under LAC 33:V.315.
- [Note: The requirements of LAC 33:V.1707-1715 apply to process vents on hazardous waste recycling units previously exempt under LAC 33:V.4115.A. Other exemptions under LAC 33:V.105.D and 1501.C are not affected by these requirements.]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 18:723 (July 1992), LR 20:1000 (September 1994), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1698 (September 1998).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1705 through 1715 do not apply to Cytec because Cytec does not operate distillation, fractionation, thin-film evaporation, solvent extraction or air or steam stripping operations that manage hazardous waste with organic concentrations of at least 10 ppmw.

§1707. Standards: Process Vents

- A. The owner or operator of a facility with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 ppmw shall either:
1. reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr); or
 2. reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.
- B. If the owner or operator installs a closed-vent system and control device to comply with the provisions of LAC 33:V.1707.A, the closed-vent system and control device must meet the requirements of LAC 33:V.1709.
- C. Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests must conform with the requirements of LAC 33:V.1711.C.
- D. When an owner or operator and the administrative authority do not agree on determinations of vent emissions and/or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in LAC 33:V.1711.C shall be used to resolve the disagreement.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation.

§1709. Standards: Closed-Vent Systems and Control Devices

A. Compliance

1. Owners or operators of closed-vent systems and control devices used to comply with provisions of LAC 33:V.Chapter 17 shall comply with the provisions of this Section.
2. The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this Subchapter on the effective date that the facility becomes subject to the provisions of this Subchapter must prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subchapter for installation and start-up. All units that begin operation after December 21, 1990, must comply with the rules immediately (i.e., must have control devices installed and operating on start-up of the affected unit); the two-year implementation schedule does not apply to these units.

B. Control Devices. A control device involving vapor recovery (e.g., a condenser or adsorber) shall be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of LAC 33:V.1707.A.1 for all affected process vents can be attained at an efficiency less than 95 weight percent.

C. Combustion Device. An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 C. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

D. Flare

1. **Visible Emissions.** A flare shall be designed for and operated with no visible emissions as determined by the methods specified in LAC 33:V.1709.E.1, except for periods not to exceed a total of five minutes during any two consecutive hours.
2. **Flame.** A flare shall be operated with a flame present at all times, as determined by the methods specified in LAC 33:V.1709.F.2.c.

3. **Combustible Heating Value.** A flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted, or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in LAC 33:V.1709.E.2.
4. **Steam-Assisted or Nonassisted**
 - a. A steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in LAC 33:V.1709.E.3, of less than 18.3 m/s (60 ft/s), except as provided in LAC 33:V.1709.D.4.b and c.
 - b. A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in LAC 33:V.1709.E.3, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
 - c. A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in LAC 33:V.1709.E.3, of less than the velocity, V_{max} , as determined by the method specified in LAC max 33:V.1709.E.4, and less than 122 m/s (400 ft/s), is allowed.
5. **Air-Assisted.** An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in LAC 33:V.1709.E.5.
6. **Compliance.** A flare used to comply with this Section shall be steam-assisted, air-assisted, or nonassisted.

E. Visible Emissions

1. Reference Method 22 in LAC 33:III.6079 shall be used to determine the compliance of a flare with the visible emission provisions of this Subchapter. The observation period is two hours and shall be used according to Method 22.
2. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \left[\sum_{i=1}^n C_i H_i \right]$$

where:

H_T = net heating value of the sample, MJ/scm; where the net enthalpy per T mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is 20 °C;
 K = constant, 1.74×10^{-1} (1/ppm) (g mol/scm) (MJ/kcal), where standard -1 temperature for (g mol/scm) is 20 °C;

C_i = concentration of sample component i in ppm on a wet basis, as I measured for organics by Reference Method 18 in LAC 33:III.6071 and measured for hydrogen and carbon monoxide by ASTM D 1946-82; and
 H_i = net heat of combustion of sample component i , kcal/mol at 25 °C and 760 mmHg. The heats of combustion may be determined using ASTM D 2382- 83 if published values are not available or cannot be calculated.

3. The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by the methods in LAC 33:III.Chapter 60 as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
4. The maximum allowed velocity in m/s, V_{max} , for a flare complying with max, LAC 33:V.1709.D.4.c shall be determined by the following equation:

$$\text{Log}_{10} (V_{max}) = \frac{H_T + 28.8}{31.7}$$

where:

28.8 = constant;

31.7 = constant;

H_T = the net heating value as determined in LAC 33:V.1709.E.2.

5. The maximum allowed velocity in m/s, V_{max} , for an air-assisted flare shall max be determined by the following equation:

$$V_{max} = 8.706 + 0.7084 (H_T)$$

where:

8.706 = constant;

0.7084 = constant;

H_T = the net heating value as determined in LAC 33:V.1709.E.2.

- F. **Inspection and Monitoring.** The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements.

1. Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.
2. Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

- a. For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.
 - b. For a catalytic vapor incinerator, a temperature-monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet, and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.
 - c. For a flare, a heat-sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
 - d. For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature-monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone.
 - e. For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter or parameters that indicate that good combustion operating practices are being used.
 - f. For a condenser, either:
 - i. a monitoring device equipped with a continuous recorder to measure the concentration level of the total organic compounds in the exhaust vent stream from the condenser, or
 - ii. a temperature-monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).
 - g. For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:
 - i. a monitoring device equipped with a continuous recorder to measure the concentration level of the total organic compounds in the exhaust vent stream from the carbon bed, or
 - ii. a monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.
4. Inspect the readings from each monitoring device required by LAC 33:V.1709.F.1 and 2 at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure

that the control device operates in compliance with the requirements of this Section.

- G. **Carbon Adsorption System, Regenerative.** An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined interval that is no longer than the carbon service life established as a requirement of LAC 33:V.1713.B.4.c.vi.
- H. **Carbon Adsorption System, Nonregenerative.** An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly on-site in the control device shall replace the existing carbon in the control device with fresh carbon regularly by using one of the following procedures:
 - 1. Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of LAC 33:V.1713.B.4.c.vii, whichever is longer.
 - 2. Replace the existing carbon with fresh carbon at a regular, predetermined interval that is less than the design carbon replacement interval established as a requirement of LAC 33:V.1713.B.4.c.vii.
- I. **Alternative Process or Operational Parameters.** An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.
- J. **Alternative Control Device: Documentation.** An owner or operator of an affected facility seeking to comply with the provisions of LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27, 28, 29, 31, 32, 33, 35, 37 by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.
- K. **A closed-vent system shall meet either of the following design requirements:**
 - 1. a closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in LAC 33:V.1711.B and by visual inspections; or
 - 2. a closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily

accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

- L.** The owner or operator shall monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:
- 1.** each closed-vent system that is used to comply with Subsection K.1 of this Section shall be inspected and monitored in accordance with the following requirements
 - a.** an initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in LAC 33:V.1711.B to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background;
 - b.** after initial leak detection monitoring required in Subsection L.1.a of this Section, the owner or operator shall inspect and monitor the closed-vent system as follows:
 - i.** closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in LAC 33:V.1711.B to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted);
 - ii.** closed-vent system components or connections other than those specified in Subsection L.1.b.i of this Section shall be monitored annually and at other times as requested by the administrative authority, except as provided for in Subsection O of this Section, using the procedures specified in LAC 33:V.1711.B to demonstrate that the components or connections operate with no detectable emissions;
 - c.** in the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of Subsection L.3 of this Section;
 - d.** the owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in LAC 33:V.1713;

2. each closed-vent system that is used to comply with Subsection K.2 of this Section shall be inspected and monitored in accordance with the following requirements:
 - a. the closed-vent system shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections;
 - b. the owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year;
 - c. in the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection L.3 of this Section; and
 - d. the owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in LAC 33:V.1713;
3. the owner or operator shall repair all detected defects as follows:
 - a. detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in Subsection L.3.c of this Section;
 - b. a first attempt at repair shall be made no later than five calendar days after the emission is detected;
 - c. delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown; and
 - e. the owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in LAC 33:V.1713.
- M. Closed-vent systems and control devices used to comply with provisions of this Chapter shall be operated at all times when emissions may be vented to them.
- N. The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:
 1. regenerated or reactivated in a thermal treatment unit that meets one of the following:

- a. the owner or operator of the unit has been issued a final permit under LAC 33:V.Chapter 5 which implements the requirements of LAC 33:V.Chapter 32;
 - b. the unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subchapters A and C of this Chapter or of LAC 33:V.Chapter 43; or
 - c. the unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or part 63;
2. incinerated in a hazardous waste incinerator for which the owner or operator either:
 - a. has been issued a final permit under LAC 33:V.Chapter 5 that implements the requirements of LAC 33:V.Chapter 31; or
 - b. has designed and operates the incinerator in accordance with the interim status requirements of LAC 33:V.Chapter 43.Subchapter N;
 3. burned in a boiler or industrial furnace for which the owner or operator either:
 - a. has been issued a final permit under LAC 33:V.Chapter 5 that implements the requirements of LAC 33:V.Chapter 30; or
 - c. has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of LAC 33:V.Chapter 30.
- O. Any components of a closed-vent system that are designated, as described in LAC 33:V.1713.C.9, as unsafe to monitor are exempt from the requirements of Subsection L.1.b.ii of this Section if:
1. the owner or operator of the closed-vent system determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection L.1.b.ii of this Section; and
 2. the owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in Subsection L.1.b.ii of this Section as frequently as practicable during safe-to-monitor times.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 20:1000 (September 1994), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1698 (September 1998).

Response: Cytac acknowledges the above citation.

§1711. Test Methods and Procedures

- A. Each owner or operator subject to the provisions of this Subchapter shall comply with the test methods and procedures requirements provided in this Section.
- B. When a closed-vent system is tested for compliance with no detectable emissions, as required in LAC 33:V.1709.L, the test shall comply with the following requirements.
 - 1. Monitoring shall comply with Reference Method 21 in LAC 33:III.6077.
 - 2. The detection instrument shall meet the performance criteria of Reference Method 21.
 - 3. The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
 - 4. Calibration gases shall be:
 - a. zero air (less than 10 ppm of hydrocarbon in air);
 - b. a mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.
 - 5. The background level shall be determined as set forth in Reference Method 21.
 - 6. The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible, as described in Reference Method 21.
 - 7. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- C. Performance tests to determine compliance with LAC 33:V.1707.A and with the total organic compound concentration limit of LAC 33:V.1709.C shall comply with the following:
 - 1. Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced in accordance with the following reference methods and calculation procedures:
 - a. Method 2 in LAC 33:III.6003 for velocity and volumetric flow rate.
 - b. Method 18 in LAC 33:III.6071 for organic content.
 - c. Each performance test shall consist of three separate runs; each run shall be conducted for at least one hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs shall apply. The average shall be computed on a time-weighted basis.

- d. Total organic mass flow rates shall be determined by the following equation:

$$E_h = Q_{2sd} \left[\sum_{i=1}^n C_i MW_i \right] [0.0416] [10^{-6}]$$

where:

E_h = total organic mass flow rate, kg/h; h

Q_{2sd} = volumetric flow rate of gases entering or exiting control device, 2sd as determined by Method 2, dscm/h;

n = number of organic compounds in the vent gas;

C_i = organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

MW_i = molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = conversion factor for molar volume, kg-mol/m³ (@ 293 K and 760 mm Hg); and

10^{-6} = conversion from ppm, ppm⁻¹

- e. The annual total organic emission rate shall be determined by the following equation:

$$E_A = (E_h) (H)$$

where:

E_A = total organic mass emission rate, kg/y; A

E_h = total organic mass flow rate for the process vent, kg/h; and h

H = total annual hours of operations for the affected unit, h.

- f. Total organic emissions from all affected process vents at the facility shall be determined by summing the hourly total organic mass emission rates (E as determined in LAC 33:V.1711.C.1.d) and by summing the annual total organic mass emission rates (E_h , as determined in LAC 33:V.1711.C.1.e) for all affected process vents at the facility.

2. The owner or operator shall record such process information as may be necessary to determine the conditions of the performance tests. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.
3. The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
- a. sampling ports adequate for the test methods specified in LAC 33:V.1711.C.1;
 - b. safe sampling platform(s);
 - c. safe access to sampling platform(s); and
 - e. utilities for sampling and testing equipment.
4. For the purpose of making compliance determinations, the time-weighted average of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be

discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the administrative authority's approval, be determined using the average of the results of the two other runs.

- D. To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subchapter, the owner or operator must make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods.
1. Direct measurement of the organic concentration of the waste using the following procedures:
 - a. The owner or operator must take a minimum of four grab samples of waste for each waste stream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.
 - b. For waste generated on-site, the grab samples must be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated off-site, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.
 - c. Each sample shall be analyzed, and the total organic concentration of the sample shall be computed using Method 9060 or 8260 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110.
 - d. The arithmetic mean of the results of the analyses of the four samples shall apply for each waste stream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each waste stream managed in the unit.
 2. Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a waste stream having a total organic content less than 10 ppmw, or prior speciation analysis results on the same waste stream where it can also be documented that

1. For facilities that comply with the provisions of LAC 33:V.1709.A.2, an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subchapter.
2. Up-to-date documentation of compliance with the process vent standards in LAC 33:V.1707, including:
 - a. Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).
 - b. Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (i.e., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.
3. Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include:
 - a. a description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program;
 - b. a detailed engineering description of the closed-vent system and control device including:
 - i. manufacturer's name and model number of control device;
 - ii. type of control device;
 - iii. dimensions of the control device;
 - iv. capacity; and
 - v. construction materials;

- c. a detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.
4. Documentation of compliance with LAC 33:V.1709 shall include the following information:
 - a. a list of all information references and sources used in preparing the documentation;
 - b. records, including the dates, of each compliance test required by LAC 33:V.1709.K;
 - c. if engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," as incorporated by reference at LAC 33:V.110, or other engineering texts acceptable to the administrative authority that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with LAC 33:V.1713.B.4.c.i—vii may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below;
 - i. for a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time;
 - ii. for a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet;
 - iii. for a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone;
 - iv. for a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in LAC 33:V.1709.D;
 - v. for a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and

- design average temperatures of the coolant fluid at the condenser inlet and outlet;
- vi. for a carbon adsorption system such as a fixed-bed absorber that regenerates the carbon bed directly on-site in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon;
 - vii. for a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly on-site in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for the carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule;
 - d. a statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur;
 - e. a statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of LAC 33:V.1707.A is achieved at an efficiency less than 95 weight percent, or the total organic emission limits of LAC 33:V.1707.A for all affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement;
 - f. if performance tests are used to demonstrate compliance, all test results.
- C. Design: Documentation, Monitoring, Operating, and Inspection. Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27, 28, 29, 31, 32, 33, 35, and 37 shall be recorded and kept up-to-date in the facility operating record. The information shall include:
- 1. a description and the date of each modification made to the closed-vent system or control device design;

2. identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with LAC 33:V.1709.F.1 and 2;
3. monitoring, operating, and inspection information required by LAC 33:V.1709.F-K;
4. date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:
 - a. for a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 C, each period when o the combustion temperature is below 760 C; o
 - b. for a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, each period when the combustion zone temperature is more than 28 C below the design average combustion o zone temperature established as a requirement of LAC 33:V.1713.B.4.c.i;
 - c. for a catalytic vapor incinerator, each period when:
 - i. temperature of the vent stream at the catalyst bed inlet is more than 28 C below the average temperature of the inlet vent stream established as a o requirement of LAC 33:V.1713.B.4.c.ii, or
 - ii. temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of LAC 33:V.1713.B.4.c.ii;
 - d. for a boiler or process heater, each period when:
 - i. flame zone temperature is more than 28 C below the design o average flame zone temperature established as a requirement of LAC 33:V.1713.B.4.c.iii, or
 - ii. position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of LAC 33:V.1713.B.4.c.iii;
 - e. for a flare, each period when the pilot flame is not ignited;
 - f. for a condenser that complies with LAC 33:V.1709.F.2.f.i, each period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of LAC 33:V.1713.B.4.c.v;
 - g. for a condenser that complies with LAC 33:V.1709.F.2.f.ii, each period when:
 - i. temperature of the exhaust vent stream from the condenser is more than 6 C above the design average exhaust vent stream temperature established as a o requirement of LAC 33:V.1713.B.4.c.v; or
 - ii. temperature of the coolant fluid exiting the condenser is more than 6 C above the design average coolant fluid temperature at the

- condenser outlet o established as a requirement of LAC 33:V.1713.B.4.c.v;
- h. for a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with LAC 33:V.1709.F.2.g.i, each period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of LAC 33:V.1713.B.4.c.v;
 - i. for a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with LAC 33:V.1709.F.2.g.ii, each period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of LAC 33:V.1713.B.4.c.vi;
 5. explanation for each period recorded under LAC 33:V.1713.C.4 of the cause for the control device operating parameter exceeding the design value and the measures implemented to correct the control device operation;
 6. for a carbon adsorption system operated subject to requirements specified in LAC 33:V.1709.G or H.2, the date when existing carbon in the control device is replaced with fresh carbon;
 7. for a carbon adsorption system operated subject to requirements specified in LAC 33:V.1709.H.1, a log that records:
 - a. date and time when the control device is monitored for carbon breakthrough and the monitoring device reading; and
 - b. date when existing carbon in the control device is replaced with fresh carbon;
 8. date of each control device start-up and shutdown;
 9. an owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to LAC 33:V.1709.O shall record in a log that is kept in the facility operating record, the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of LAC 33:V.1709.O, an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component;
 10. when each leak is detected as specified in LAC 33:V.1709.L, the following information shall be recorded:
 - a. the instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number;

- b. the date the leak was detected and the date of first attempt to repair the leak;
 - c. the date of successful repair of the leak; and
 - d. maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable;
 - e. "repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - i. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
 - ii. If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.
- D. **Record Retention.** Records of the monitoring, operating, and inspection information required by LAC 33:V.1713.C.3-10 must be kept on site for three years.
- E. **Alternative Control Devices.** For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the administrative authority will specify the appropriate recordkeeping requirements.
- F. **Log.** Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in LAC 33:V.1707 including supporting documentation as required by LAC 33:V.1711.D.2 when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used, shall be recorded in a log that is kept in the facility operating record.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 18:723 (July 1992), LR 20:1000 (September 1994), LR 22:818 (September 1996), amended by the Office Of Waste Services, Hazardous Waste Division, LR 24:1700 (September 1998).

Response: Cytec acknowledges the above citation.

§1715. Reporting Requirements

- A. A semiannual report shall be submitted by owners and operators subject to the requirements of this Subchapter to the administrative authority by dates specified by the administrative authority. The report shall include the following information:
- 1. the Environmental Protection Agency identification number, name, and address of the facility; and

2. for each month during the semiannual reporting period, dates when the control device exceeded or operated outside of the design specifications as defined in LAC 33:V.1713.C.4 and as indicated by the control device monitoring required by LAC 33:V.1709.F and such exceedances were not corrected within 24 hours, or that a flare operated with visible emissions as defined in LAC 33:V.1709.D and as determined by Method 22 monitoring, the duration and cause of each exceedance or visible emissions, and any corrective measures taken.
- B. If, during the semiannual reporting period, the control device does not exceed or operate outside of the design specifications as defined in LAC 33:V.1713.C.4 for more than 24 hours or a flare does not operate with visible emissions as defined in LAC 33:V.1709.D, a report to the administrative authority is not required.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytac acknowledges the above citation.

Subchapter B. Equipment Leaks

§1717. Applicability

- A. The regulations in this Subchapter apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in LAC 33:V.1501).
- B. Except as provided in LAC 33:V.1743.K, this Subchapter applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in one of the following:
 1. a unit that is subject to the permitting requirements of LAC 33:V.Chapters 3, 5, 7, 31, and 43; or
 2. a unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of LAC 33:V.1109.E.1 (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of LAC 33:V.Chapters 3, 5, 7, 31, and 43; or
 3. a unit that is exempt from permitting under the provisions of LAC 33:V.1109.E.1 (i.e., a 90-day tank or container).
- C. If the owner or operator of equipment subject to the requirements of LAC 33:V.1719—1745 has received a permit under LAC 33:V.Subpart 1 prior to December 21, 1990, the requirements of LAC 33:V.1719—1745 must be incorporated when the permit is reissued under LAC 33:V.705 or reviewed under LAC 33:V.315.

- D. Each piece of equipment to which this Subchapter applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.
- E. Equipment that is in vacuum service is excluded from the requirements of LAC 33:V.1719—1735 if it is identified as required in LAC 33:V.1743.G.5.
- F. Equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year is excluded from the requirements of LAC 33:V.1719 - 1735 if it is identified, as required in LAC 33:V.1743.
[Note: The requirements of LAC 33:V.1719-1745 apply to equipment associated with hazardous waste recycling units previously exempt under LAC 33:V.4115.A. Other exemptions under LAC 33:V.105.D and 1501.C are not affected by these requirements.]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 20:1000 (September 1994), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1700 (September 1998).

Response: Cytac acknowledges the above citation. Cytac previously operated a hazardous waste tank identified as the Aceto Surge Tank MS-505, which had the potential to manage hazardous with organic concentrations of at least 10 percent by weight. This tank has subsequently been closed and the closure approved by LDEQ. However, the associated piping and other equipment formerly connected to the tank is still in service and being maintained in compliance with LAC 33:V. Chapter 17 Subchapter B, even though there is no longer a hazardous waste "unit" subject to the requirements of LAC 33:V. Chapter 17 Subchapter B. The equipment subject to LAC 33:V. Chapter 17 Subchapter B has been marked with a tag so that it can be identified from other pieces of equipment.

§1719. Standards: Pumps in Light Liquid Service

A. Monitoring

1. Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in LAC 33:V.1741.B, except as provided in Subsections D, E, and F of this Section.
2. Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

B. Leak Detection

1. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

2. If there are indications of liquids dripping from the pump seal, a leak is detected.

C. Repair

1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in LAC 33:V.1733.
2. A first attempt at repair (e.g., tightening the packing gland) shall be made no later than five calendar days after each leak is detected.

D. Dual Mechanical Seal Exemption. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of LAC 33:V.1719.A provided the following requirements are met.

1. **Operation and Equipment.** Each dual mechanical seal system must be:
 - a. operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or
 - b. equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of LAC 33:V.1735; or
 - c. equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere.
2. **Barrier Fluid System.** The barrier fluid system must not be a hazardous waste with organic concentrations 10 percent or greater by weight.
3. **Barrier Fluid System Sensor.** Each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
4. **Pump Inspection.** Each pump must be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.
5. **Seal System and Sensor Function**
 - a. Each sensor as described in LAC 33:V.1719.D.3 must be checked daily or be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly.
 - b. The owner or operator must determine, on the basis of design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
6. **Leak Detection and Repair**
 - a. If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both on the basis of the criterion determined in LAC 33:V.1719.D.5.b, a leak is detected.

- b. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in LAC 33:V.1733.
 - c. A first attempt at repair (e.g., relapping the seal) shall be made no later than five calendar days after each leak is detected.
- E. **No Detectable Emission Exemption.** Any pump that is designated, as described in LAC 33:V.1743.G.2, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of LAC 33:V.1719.A, C, and D if the pump meets the following requirements:
- 1. The pump must have no externally actuated shaft penetrating the pump housing.
 - 2. The pump must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in LAC 33:V.1741.C.
 - 3. The pump must be tested for compliance with LAC 33:V.1719.E.2 initially upon designation, annually, and at other times as requested by the administrative authority.
- F. **Closed Vent System Exemption.** If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of LAC 33:V.1735, it is exempt from the requirements of LAC 33:V.1719.A-E.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation. Cytec will monitoring each pump in light liquid service monthly to detect leaks by the methods specified in LAC 33:V.1741.B and weekly check each pump in light liquid service by visual inspection for indications of liquids dripping from the pump seal. Cytec is not currently claiming an exemption as specified in LAC 33:V.1719D.E. or F.

§1721. Standards: Compressors

- A. **Equipment.** Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in LAC 33:V.1721.H and I.
- B. **Seal System.** Each compressor seal system as required in LAC 33:V.1721.A shall be:
 - 1. operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure, or

2. equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of LAC 33:V.1735, or
 3. equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to atmosphere.
- C. Barrier Fluid System. The barrier fluid must not be a hazardous waste with organic concentrations 10 percent or greater by weight.
- D. Barrier Fluid System Sensor. Each barrier fluid system as described in LAC 33:V.1721.A—C shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
- E. Seal System and Sensor Function
1. Each sensor as required in LAC 33:V.1721.D shall be checked daily or shall be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor must be checked daily.
 2. The owner or operator shall determine, on the basis of design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
- F. Leak Detection. If the sensor indicates failure of the seal system, the barrier fluid system, or both on the basis of the criterion determined under LAC 33:V.1721.E.2, a leak is detected.
- G. Leak Repair
1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in LAC 33:V.1733.
 2. A first attempt at repair (e.g., tightening the packing gland) shall be made no later than five calendar days after each leak is detected.
- H. Closed-Vent System Exemption. A compressor is exempt from the requirements of LAC 33:V.1721.A and B if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of LAC 33:V.1735, except as provided in LAC 33:V.1721.I.
- I. No Detectable Emission Exemption. Any compressor that is designated, as described in LAC 33:V.1743.G.2, for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of LAC 33:V.1721.A-H if the compressor:
1. is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in LAC 33:V.1741.C; and

2. is tested for compliance with LAC 33:V.1721.I.1 initially upon designation, annually, and at other times as required by the administrative authority.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1721 do not apply to Cytec because Cytec does not operate any compressors subject to the requirements of LAC 33:V.Chapter 17 Subchapter B.

§1723. Standards: Pressure Relief Devices in Gas/Vapor Service

- A. Operation. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in LAC 33:V.1741.C.
- B. Monitoring
 1. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five calendar days after each pressure release, except as provided in LAC 33:V.1733.
 2. No later than five calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in LAC 33:V.1741.C.
- C. Exemption. Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in LAC 33:V.1735 is exempt from the requirements of LAC 33:V.1723.A and B.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1723 do not apply to Cytec because Cytec does not operate any pressure relief devices in gas/vapor service that are subject to the requirements of LAC 33:V.Chapter 17 Subchapter B.

§1725. Standards: Sampling Connection Systems

- A. Each sampling connection system shall be equipped with a closed purge, closed loop, or closed-vent system. This system shall collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.
- B. Each closed-purge, closed loop, or closed-vent system, as required in Subsection A of this Section, shall meet one of the following requirements:
 - 1. return the purged process fluid directly to the process line;
 - 2. collect and recycle the purged process fluid; or
 - 3. be designed and operated to capture and transport all the purged process fluid to a waste management unit that complies with the applicable requirements of LAC 33:V.1755 - 1759 or a control device that complies with the requirements of LAC 33:V.1735.
- C. In situ sampling systems and sampling systems without purges are exempt from the requirements of Subsections A and B of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended by the Office of Waste Services, Hazardous Waste Division, LR24:1700 (September 1998).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1725 do not apply to Cytec because Cytec does not operate any sampling connection systems subject to the requirements of LAC 33:V.Chapter 17 Subchapter B.

§1727. Standards: Open-Ended Valves or Lines

- A. Equipment.
 - 1. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.
 - 2. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line.
- B. Operation. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed.

- C. Compliance. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with LAC 33:V.1727.A at all other times.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation. Each open-ended valve or line is equipped with a cap, blind flange, plug or second valve which will seal the open end except during operations requiring hazardous waste stream flow through the open ended valve or line.

§1729. Standards: Valves in Gas/Vapor Service or in Light Liquid Service

- A. Monitoring, General. Each valve in gas/vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in LAC 33:V.1741.B and shall comply with LAC 33:V.1729.B—E, except as provided in LAC 33:V.1729.F, G, and H, and LAC 33:V.1737 and 1739.
- B. Leak Detection. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- C. Monitoring Intervals
1. Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.
 2. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months.
- D. Repair, General
1. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in LAC 33:V.1733.
 2. A first attempt at repair shall be made no later than five calendar days after each leak is detected.
- E. Repair Methods. First attempts at repair include, but are not limited to, the following best practices where practicable:
1. tightening of bonnet bolts;
 2. replacement of bonnet bolts;

3. tightening of packing gland nuts; and
 4. injection of lubricant into lubricated packing.
- F. **No Detectable Emission Exemption.** Any valve that is designated, as described in LAC 33:V.1743.G.2, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of LAC 33:V.1729.A if the valve:
1. has no external actuating mechanism in contact with the hazardous waste stream;
 2. is operated with emissions less than 500 ppm above background as determined by the method specified in LAC 33:V.1741.C; and
 3. is tested for compliance with LAC 33:V.1729.F.2 initially upon designation, annually, and at other times as requested by the administrative authority.
- G. **Unsafe-to-Monitor Exemption.** Any valve that is designated, as described in LAC 33:V.1743.H.1, as an unsafe-to-monitor valve is exempt from the requirements of LAC 33:V.1729.A if:
1. the owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with LAC 33:V.1729.A; and
 2. the owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.
- H. **Difficult-to-Monitor Exemption.** Any valve that is designated, as described in LAC 33:V.1743.H.2, as a difficult-to-monitor valve is exempt from the requirements of LAC 33:V.1729.A if:
1. the owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than two meters above a support surface;
 2. the hazardous waste management unit within which the valve is located was in operation before June 21, 1990; and
 3. the owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation. Cytec will monitor each valve in light liquid service monthly to detect leaks by the methods specified in LAC 33:V.1741.B. Cytec is not currently claiming a no detectable emission exemption. Cytec has a written plan, which specifies that Unsafe-to-Monitor components be monitored when it is safe and Difficult-to-Monitor components are monitored of the valve at least once per calendar year.. A copy of this plan was included in Appendix OO of the June 1, 1998 submittal.

§1731. Standards: Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors

- A. Monitoring. Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within five days by the method specified in LAC 33:V.1741.B if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.
- B. Leak Detection. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- C. Repair
 - 1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in LAC 33:V.1733.
 - 2. The first attempt at repair shall be made no later than five calendar days after each leak is detected.
- D. Repair Methods. First attempts at repair include, but are not limited to, the best practices described under LAC 33:V.1729.E.
- E. Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of Subsection A of this Section and from the recordkeeping requirements of LAC 33:V.1743.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended by the Office of Waste Services, Hazardous Waste Division, LR24:1701 (September 1998).

Response: Cytec acknowledges the above citation. Cytec will monitor flanges and other connectors within five days by the method specified if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method. Cytec will make the first attempt at repair no later than five calendar days after each leak is detected and the repair will be complete as soon as practicable, but not later than 15 calendar days after it is detected, except as provided by the regulations.

§1733. Standards: Delay of Repair

- A. Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous waste management unit shutdown.
- B. Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.
- C. Delay of repair for valves will be allowed if:
 - 1. the owner or operator determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair;
 - 2. repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with LAC 33:V.1735.
- D. Delay of repair for pumps will be allowed if:
 - 1. repair requires the use of a dual mechanical seal system that includes a barrier fluid system;
 - 2. repair is completed as soon as practicable, but not later than six months after the leak was detected.
- E. Delay of repair beyond a hazardous waste management unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous waste management unit shutdown will not be allowed unless the next hazardous waste management unit shutdown occurs sooner than six months after the first hazardous waste management unit shutdown.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation.

§1735. Standards: Closed-Vent Systems and Control Devices

Owners or operators of closed-vent systems and control devices shall comply with the provisions of LAC 33:V.1709.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1735 do not apply to Cytec because Cytec does not operate any closed vent systems or control devices subject to the requirements of LAC 33:V.Chapter 17 Subchapter B.

§1737. Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak

- A. An owner or operator subject to the requirements of LAC 33:V.1729 may elect to have all valves within a hazardous waste management unit comply with an alternative standard that allows no greater than two percent of the valves to leak.
- B. The following requirements shall be met if an owner or operator decides to comply with the alternative standard of allowing two percent of the valves to leak.
 - 1. An owner or operator must notify the administrative authority that the owner or operator has elected to comply with the requirements of this Section.
 - 2. A performance test as specified in LAC 33:V.1737.C shall be conducted initially upon designation, annually, and at other times requested by the administrative authority.
 - 3. If a valve leak is detected, it shall be repaired in accordance with LAC 33:V.1729.D and E.
- C. Performance tests shall be conducted in the following manner:
 - 1. All valves subject to the requirements of LAC 33:V.1729 within the hazardous waste management unit shall be monitored within one week by the methods specified in LAC 33:V.1741.B.
 - 2. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
 - 3. The leak percentage shall be determined by dividing the number of valves subject to the requirements in LAC 33:V.1729 for which leaks are detected by the total number of valves subject to the requirements in LAC 33:V.1729 within the hazardous waste management unit.
- D. If an owner or operator decides to comply with this Section no longer, the owner or operator must notify the administrative authority in writing that the work practice standard described in LAC 33:V.1729.A—E will be followed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1737 do not apply to Cytec at this time because Cytec is not using an alternative standard that allows no greater than two percent of the valves to leak.

§1739. Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair

A. Alternative Work Practices

1. An owner or operator subject to the requirements of LAC 33:V.1729 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in LAC 33:V.1739.B.2 and 3.
2. An owner or operator must notify the administrative authority before implementing one of the alternative work practices.

B. Leak Detection Skip Period

1. An owner or operator shall comply with the requirements for valves, as described in LAC 33:V.1729, except as described in LAC 33:V.1739.B.2 and 3.
2. After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves subject to the requirements in LAC 33:V.1729.
3. After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves subject to the requirements in LAC 33:V.1729.
4. If the percentage of valves leaking is greater than two percent, the owner or operator shall monitor monthly in compliance with the requirements in LAC 33:V.1729, but may again elect to use this Section after meeting the requirements of LAC 33:V.1729.C.1.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1739 do not apply to Cytec at this time because Cytec does not

use an alternative standard which allows skip period leak detection and repair.

§1741. Test Methods and Procedures

- A. Each owner or operator subject to the provisions of this Subchapter shall comply with the test methods and procedures requirements provided in this Section.**
- B. Leak detection monitoring, as required in LAC 33:V.1719-1739, shall comply with the following requirements:**
 - 1. Monitoring shall comply with Reference Method 21 in LAC 33:III.6077.**
 - 2. The detection instrument shall meet the performance criteria of Reference Method 21.**
 - 3. The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.**
 - 4. Calibration gases shall be:**
 - a. zero air (less than 10 ppm of hydrocarbon in air); and**
 - b. a mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.**
 - 5. The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.**
- C. When equipment is tested for compliance with no detectable emissions, as required in LAC 33:V.1719.E, 1721.I, 1723, and 1729.F, the test shall comply with the following requirements:**
 - 1. The requirements of LAC 33:V.1741.B.1-4 shall apply.**
 - 2. The background level shall be determined as set forth in Reference Method 21.**
 - 3. The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.**
 - 4. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.**
- D. In accordance with the waste analysis plan required by LAC 33:V.1519.B, an owner or operator of a facility must determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight using the following:**

1. methods described in ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85, as incorporated by reference at LAC 33:V.110;
 2. method 9060 or 8260 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110; or
 3. application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced. A waste determination by knowledge must be documented. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same waste stream where it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.
- E. If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the determinations can be revised only after following the procedures in LAC 33:V.1741.D.1 or 2.
- F. When an owner or operator and the administrative authority do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in LAC 33:V.1741.D.1 or 2 can be used to resolve the dispute.
- G. Samples used in determining the percentage organic content shall be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.
- H. To determine whether pumps or valves are in light liquid service, the vapor pressures of constituents may be obtained from standard reference texts or may be determined by ASTM D-2879-86, as incorporated by reference at LAC 33:V.110.
- I. Performance tests to determine whether a control device achieves 95 weight percent organic emission reduction shall comply with the procedures of LAC 33:V.1711.C.1-4.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 20:1000 (September 1994), LR 22:819 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1701 (September 1998).

Response: Cytex acknowledges the above citation. Cytex has determined the organic concentration of the hazardous waste stream using both analytical data and documented generator knowledge.

§1743. Recordkeeping Requirements

A. Compliance with Recordkeeping

1. Each owner or operator subject to the provisions of this Subchapter shall comply with the recordkeeping requirements of this Section.
2. An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subchapter may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

Response: Cytec acknowledges the above citation.

B. Facility Operating Record. Owners and operators must record the following information in the facility operating record.

1. For each piece of equipment to which LAC 33:V.Chapter 17, Subchapter B, applies:
 - a. equipment identification number and hazardous waste management unit identification;

Response: Cytec acknowledges the above citation. The equipment identification or tag number and hazardous waste management unit identification or location for each piece of equipment subject to LAC 33:V.Chapter 17 Subchapter B is provided in Appendix OO of the June 1, 1998 submittal.

- b. approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan);

Response: Cytec acknowledges the above citation. The approximate location of the hazardous waste tank system ancillary equipment within the facility is identified on the Hazardous Waste Management System Location Map in Appendix J, Figure 2 of the June 1, 1998 submittal in the vicinity northwest of the Recovery Column Bottoms (RCB) Pretreatment System.

- c. type of equipment (e.g., a pump or pipeline valve);

Response: Cytec acknowledges the above citation. The type of equipment consists of valves, pumps, potential open ended valves and lines and flanges. The type of equipment is specified on the list included in Appendix OO of the June 1, 1998 submittal.

- d. percent-by-weight total organics in the hazardous waste stream at the equipment;

Response: Cytec acknowledges the above citation. The percent by weight total organics in the hazardous waste stream at the equipment was analyzed in 1990 and determined to contain 5.1% Total Organic Carbon (TOC) by Method 9060 and approximately 11% organics by Gas Chromatography (GC). The GC results indicated the organic content to be near the regulatory limit of 10% by weight and the Method 9060 results indicated the TOC concentration to be well below the 10% regulatory limit. However, it was determined that the stripper overheads line and associated equipment would be subject to these regulations because the organic concentration in the stripper overheads has the potential to exceed the 10% regulatory limit. Since 1990, Cytec has used generator knowledge and process materials mass balances to confirm that the organic concentration can still exceed 10% by weight.

- e. hazardous waste state at the equipment (e.g., gas/vapor or liquid); and

Response: Cytec acknowledges the above citation. The hazardous waste is in a liquid state at the point of contact with the equipment.

- f. method of compliance with the standard (i.e., "monthly leak detection and repair" or "equipped with dual mechanical seals").

Response: Cytec acknowledges the above citation. Cytec complies with the standard by performing monthly leak detection and repair for accessible components and annual monitoring for inaccessible components that are difficult to monitor. Cytec has elected to consolidate those components subject to regulation under LAC 33:V.Chapter 17 Subchapter B into the monitoring program conducted in compliance with 40 CFR 63 Subpart H.

3. For facilities that comply with the provisions of LAC 33:V.1709.A.2, an implementation schedule as specified in LAC 33:V.1709.A.2.
4. Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in LAC 33:V.1713.B.3.
5. Documentation of compliance with LAC 33:V.1735, including the detailed design documentation or performance test results specified in LAC 33:V.1713.B.4.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1743.B.2.-4. Do not apply to Cytec because Cytec does not operate a closed vent system or control device associated with the equipment subject to the requirements of LAC 33:V.Chapter 17 Subchapter B.

- C. **Leak Detection.** When each leak is detected as specified in LAC 33:V.1719, 1721, 1729, and 1731, the following requirements apply.
1. A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with LAC 33:V.1731.A, and the date the leak was detected, shall be attached to the leaking equipment.
 2. The identification on equipment, except on a valve, may be removed after it has been repaired.
 3. The identification on a valve may be removed after it has been monitored for two successive months as specified in LAC 33:V.1729.C, and no leak has been detected during those two months.

Response: Cytec acknowledges the above citation.

- D. **Inspection Log.** When each leak is detected as specified in LAC 33:V.1719, 1721, 1729, and 1731, the following information shall be recorded in an inspection log and shall be kept in the facility operating record:
1. the instrument and operator identification numbers and the equipment identification number;
 2. the date evidence of a potential leak was found in accordance with LAC 33:V.1731.A;
 3. the date the leak was detected and the dates of each attempt to repair the leak;
 4. repair methods applied in each attempt to repair the leak;
 5. "above 10,000" if the maximum instrument reading measured by the methods specified in LAC 33:V.1741.B after each repair attempt is equal to or greater than 10,000 ppm;
 6. "repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;
 7. documentation supporting the delay of repair of a valve in compliance with LAC 33:V.1733.C;
 8. the signature of the owner or operator (or the designee authorized by the owner or operator in writing in the operating record) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown;
 9. the expected date of successful repair of the leak if a leak is not repaired within 15 calendar days; and

10. the date of successful repair of the leak.

Response: Cytec acknowledges the above citation. Compliance documentation for equipment standards specified in LAC 33:V.1719 – 1733 and 1743, as applicable, are included in Appendix OO of the June 1, 1998 submittal.

- E. Design Documentation and Monitoring, Operating, and Inspection Information. Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of LAC 33:V.1735 shall be recorded and kept up-to-date in the facility operating record as specified in LAC 33:V.1713.C. Design documentation is specified in LAC 33:V.1713.C.1 and 2, and monitoring, operating, and inspection information in LAC 33:V.1713.C.3-8.
- F. Control Device Exemptions. For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the administrative authority will specify the appropriate recordkeeping requirements.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1743.E. and F. do not apply to Cytec because Cytec does not operate a closed vent system or control device associated with equipment subject to the requirements of LAC 33:V.Chapter 17 Subchapter B.

- G. Equipment Information Log. The following information pertaining to all equipment subject to the requirements in LAC 33:V.1719—1735 shall be recorded in a log that is kept in the facility operating record.
1. Identification Numbers: General. A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subchapter shall be kept in the log.
 2. Identification Numbers: No Detectable Emission Equipment
 - a. A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of LAC 33:V.1719.E, 1721.I, and 1729.F, shall be kept in the log.
 - b. The designation of this equipment as subject to the requirements of LAC 33:V.1719.E, 1721.I, or 1729.F shall be signed by the owner or operator.
 3. Identification Numbers: Pressure Relief Devices. A list of equipment identification numbers for pressure relief devices required to comply with LAC 33:V.1723.A shall be kept in the log.
 4. Compliance Test. The following compliance test information shall be included:

- a. the dates of each compliance test required in LAC 33:V.1719.E, 1721.I, 1723, and 1729.F;
 - b. the background level measured during each compliance test; and
 - c. the maximum instrument reading measured at the equipment during each compliance test.
5. Identification Numbers: Equipment in Vacuum Service. A list of identification numbers for equipment in vacuum service shall be kept in the log.
6. Identification: Either by list or location (area or group) of equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for a period of less than 300 hours per year.

Response: Cytec acknowledges the above citation. A list of identification numbers for equipment subject to the requirements of LAC 33:V.1743.G.1. are included in Appendix OO of the June 1, 1998 submittal. The requirements of LAC 33:V.1743.G.2.-6. do not apply to Cytec because does not operate those types of equipment.

- H. Identification Numbers: Valves. The following information pertaining to all valves subject to the requirements of LAC 33:V.1729.G and H shall be recorded in a log that is kept in the facility operating record:

1. a list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve; and
2. a list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

Response: Cytec acknowledges the above citation. A list of identification numbers for valves that are designated as unsafe to monitor and as difficult to monitor, an explanation for each valve stating why the valve is unsafe to monitor or difficult to monitor, and the plan for monitoring each valve is included in Appendix OO of the June 1, 1998 submittal.

- I. Valve Information Log. The following information shall be recorded in the facility operating record for valves complying with LAC 33:V.1739:

1. a schedule of monitoring; and
2. the percentage of valves found leaking during each monitoring period.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1743.I. do not apply to Cytec at this time because Cytec does not use an alternative standard which allows skip period leak detection and repair.

J. Pump Seal System Information Log. The following information shall be recorded in a log that is kept in the facility operating record:

1. criteria required in LAC 33:V.1719.D.5.b and 1721.E.2 and an explanation of the design criteria; and
2. any changes to these criteria and the reasons for the changes.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1743.J. do not apply to Cytec because Cytec does not currently operate any pumps with dual mechanical seals or compressors that are subject to the requirements of LAC 33:V.Chapter 17 Subchapter B.

K. Exemption Log. The following information shall be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in the applicability section of this Subchapter and other specific subchapters:

1. An analysis determining the design capacity of the hazardous waste management unit shall be recorded in the log.
2. A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in LAC 33:V.1719—1735 and an analysis determining whether these hazardous wastes are heavy liquids shall be recorded in the log.
3. An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in LAC 33:V.1719—1735 shall be recorded in the log. The record shall include supporting documentation as required in LAC 33:V.1741.D.3 when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in LAC 33:V.1719—1735, then a new determination is required.

Response: Cytec acknowledges the above citation. The design capacity and waste stream indication for each hazardous waste management unit are documented in Appendix LL, Table B-1 of the June 1, 1998 submittal. The hazardous waste stream analysis, documenting that the Miscellaneous Effluent (MET), Wastewater Column Bottoms (WWCB) and Recovery Column Bottoms (RCB) are heavy liquids, is updated quarterly and is included in Appendix M of the June 1, 1998 submittal.

L. Record Retention Period for Equipment Leak Information. Records of the equipment leak information required by LAC 33:V.1743.D and the operating information required by LAC 33:V.1743.E must be kept for three years.

Response: Cytec acknowledges the above citation.

- M. Compliance with Subchapter.** The owner or operator of any facility that is subject to this Subchapter and to regulations in LAC 33:III.3730—3749 or LAC 33:III.Chapter 51, Subchapter H, may elect to determine compliance with this Subchapter by documentation either pursuant to LAC 33:V.1743 or pursuant to those provisions of LAC 33:III.Chapter 37 or 51, to the extent that the documentation under the regulation in LAC 33:III.Chapter 37 or 51 duplicates the documentation required under this Subchapter. The documentation under the regulation at LAC 33:III.Chapter 37 or 51 shall be kept with or made readily available with the facility operating record.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 18:723 (July 1992), amended LR 18:723 (July 1992), Office of Waste Services, Hazardous Waste Division, LR 24:1701 (September 1998).

Response: Cytec acknowledges the above citation.

§1745. Reporting Requirements

- A.** A semiannual report shall be submitted by owners and operators subject to the requirements of this Subchapter to the administrative authority by dates specified by the administrative authority. The report shall include the following information.
1. The Environmental Protection Agency identification number, name, and address of the facility shall be included.
 2. For each month during the semiannual reporting period, the following shall be included:
 - a. the equipment identification number of each valve for which a leak was not repaired as required in LAC 33:V.1729.D;
 - b. the equipment identification number of each pump for which a leak was not repaired as required in LAC 33:V.1719.C and D.6; and
 - c. the equipment identification number of each compressor for which a leak was not repaired as required in LAC 33:V.1721.G.
 3. Dates of hazardous waste management unit shutdowns that occurred within the semiannual reporting period shall be included.
 4. For each month during the semiannual reporting period, dates when the control device installed as required by LAC 33:V.1719, 1721, 1723, or 1725 exceeded or operated outside of the design specifications as defined in LAC 33:V.1743.E and as indicated by the control device monitoring required by LAC 33:V.1735 and was not corrected within 24 hours, the duration and cause of each exceedance, and any corrective measures taken shall be included.

- B. If, during the semiannual reporting period, leaks from valves, pumps, and compressors are repaired as required in LAC 33:V.1729.D, 1719.C and D.6, and 1721.G, respectively, and the control device does not exceed or operate outside of the design specifications as defined LAC 33:V.1743.E for more than 24 hours, a report to the administrative authority is not required.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

Response: Cytex acknowledges the above citation.

Subchapter C. Air Emission Standards for Tanks, Surface Impoundments, and Containers

§1747. Applicability

- A. The requirements of this Subchapter apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to either Chapter 19, 21, or 29, except as LAC 33:V.1501 and Subsection B of this Section provide otherwise.
- B. The requirements of this Subchapter do not apply to the following waste management units at the facility:
1. a waste management unit that holds hazardous waste placed in the unit before December 6, 1996, and in which no hazardous waste is added to the unit on or after this date;
 2. a container that has a design capacity less than or equal to 0.1 m³;
 3. a tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan;
 4. a surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan;
 5. a waste management unit that is used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required under the corrective action authorities of RCRA sections 3004(u), 3004(v), or 3008(h), CERCLA authorities, or similar state authorities;
 6. a waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act;

7. a hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63. For the purpose of complying with this Paragraph, a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of LAC 33:V.1755.I, except as provided in LAC 33:V.1751.C.5; and
 8. a tank that has a process vent as defined in LAC 33:V.1703.
- C. For the owner and operator of a facility subject to this Chapter and who received a final permit under RCRA section 3005 prior to December 6, 1996, the requirements of this Chapter shall be incorporated into the permit when the permit is reissued in accordance with the requirements of LAC 33:V.705 or reviewed in accordance with the requirements of LAC 33:V.315.D. Until such date when the owner and operator receives a final permit incorporating the requirements of this Chapter, the owner and operator are subject to the requirements of LAC 33:V.Chapter 43.Subchapter V.
- D. The requirements of this Subchapter, except for the recordkeeping requirements specified in LAC 33:V.1765.I, are administratively stayed for a tank or a container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations when the owner or operator of the unit meets all of the following conditions:
1. the owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purpose of meeting the conditions of this paragraph, "organic peroxide" means an organic compound that contains the bivalent —O—O— structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical;
 2. the owner or operator prepares documentation, in accordance with the requirements of LAC 33:V.1765.I, explaining why an undue safety hazard would be created if air emission controls specified in LAC 33:V.1755 - 1761 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of Subsection D.1 of this Section; and
 3. the owner or operator notifies the administrative authority, in writing, that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of Subsection D.1 of this Section are managed at the facility in tanks or containers meeting the conditions of Subsection D.2 of

this Section. The notification shall state the name and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1701 (September 1998).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1747.D. do not apply to Cytec because Cytec does not manage hazardous waste generated by organic peroxide manufacturing or its associated laboratory operations.

§1749. Definitions

As used in this Chapter, all terms shall have the meaning given to them in LAC 33:V.1703 and 109.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1702 (September 1998).

Response: Cytec acknowledges the above citation.

§1751. Standards: General

- A. This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subchapter.

Response: Cytec acknowledges the above citation.

- B. The owner or operator shall control air pollutant emissions from each waste management unit in accordance with standards specified in LAC 33:V.1755 - 1761, as applicable to the waste management unit, except as provided for in Subsection C of this Section.

Response: Cytec acknowledges the above citation. Cytec will control air pollutant emissions from each hazardous waste management unit, as applicable.

- C. A tank, surface impoundment, or container is exempt from standards specified in LAC 33:V.1755 - 1761, as applicable, provided that the waste management unit is one of the following:
1. a tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in LAC

33:V.1753.A. The owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit;

2. a tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:
 - a. a process that removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit (C) t established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process shall be determined using the procedures specified in LAC 33:V.1753.B;
 - b. a process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in LAC 33:V.1753.B;
 - c. a process that removes or destroys the organics contained in the hazardous waste to a level such that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process shall be determined using the procedures specified in LAC 33:V.1753.B;
 - d. a biological process that destroys or degrades the organics contained in the hazardous waste, such that either of the following conditions is met:
 - i. the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the organic biodegradation efficiency (R) for the process bio is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process shall be determined using the procedures specified in LAC 33:V.1753.B; or
 - ii. the total actual organic mass biodegradation rate (MR) for all bio hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process shall be determined using the procedures specified in LAC 33:V.1753.B;
 - e. a process that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:
 - i. from the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous

- waste is managed continuously in waste management units that use air emission controls in accordance with the standards specified in LAC 33:V.1755 - 1761, as applicable to the waste management unit;
- ii. from the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere. The EPA considers a drain system that meets the requirements of 40 CFR part 63, subpart RR—National Emission Standards for Individual Drain Systems to be a closed system; and
 - iii. the average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual waste stream at the point of waste origination shall be determined using the procedures specified in LAC 33:V.1753.A. The average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in LAC 33:V.1753.B;
- f. a process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination shall be determined using the procedures specified in LAC 33:V.1753.A and B, respectively;
 - g. a hazardous waste incinerator for which the owner or operator has either:
 - i. been issued a final permit under LAC 33:V.Chapter 5 that implements the requirements of LAC 33:V.Chapter 31; or
 - ii. designed and operates the incinerator in accordance with the interim status requirements of LAC 33:V.Chapter 43.Subchapter N;
 - h. a boiler or industrial furnace for which the owner or operator has either:
 - i. been issued a final permit under LAC 33:V.Chapter 5 that implements the requirements of LAC 33:V.Chapter 30; or
 - ii. designed and operates the boiler or industrial furnace in accordance with the interim status requirements of LAC 33:V.Chapter 30;
 - i. for the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of Subsection C.2.a - f of this Section, the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

- i. if Method 25D in 40 CFR part 60, appendix A is used for the analysis, one-half the blank value determined in the method; or
 - ii. if any other analytical method is used, one-half the limit of detection established for the method;
3. a tank used for biological treatment of hazardous waste in accordance with the requirements of Subsection C.2.d of this Section;
4. a tank, surface impoundment, or container for which all hazardous waste placed in the unit either:
 - a. meets the numerical concentration limits for organic hazardous constituents applicable to the hazardous waste, as specified in LAC 33:V.Chapter 22.Table 2 "Treatment Standards for Hazardous Waste"; or
 - b. has been treated by the treatment technology established by EPA for the waste in LAC 33:V.2227.A or treated by an equivalent method of treatment approved by the department in accordance with LAC 33:V.2227.B; or
5. a tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:
 - a. the tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under 40 CFR part 61, subpart FF—National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year;
 - b. the enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and
 - c. the enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in section 5.0 to "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

Response: Cytec acknowledges the above citation. Cytec will determine the average VO concentration using the procedure specified in the regulations. The determination will be reviewed and update at least annually.

- D. The administrative authority may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of this Section as follows:

1. the waste determination for average VO concentration of a hazardous waste at the point of waste origination shall be performed using direct measurement in accordance with the applicable requirements of LAC 33:V.1753.A. The waste determination for a hazardous waste at the point of waste treatment shall be performed in accordance with the applicable requirements of LAC 33:V.1753.B;
2. in performing a waste determination in accordance with Subsection D.1 of this Section, the sample preparation and analysis shall be conducted as follows:
 - a. in accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in Subsection D.2.b of this Section; and
 - b. if the administrative authority determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the administrative authority may choose an appropriate method;
3. in a case when the owner or operator is requested to perform the waste determination, the administrative authority may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis;
4. in a case when the results of the waste determination performed or requested by the administrative authority do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of Subsection D.1 of this Section shall be used to establish compliance with the requirements of this Subchapter;
5. in a case when the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the administrative authority may elect to establish compliance with this Subchapter by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a one-hour period as follows:
 - a. the average VO concentration of the hazardous waste at the point of waste origination shall be determined by direct measurement in accordance with the requirements of LAC 33:V.1753.A;
 - b. results of the waste determination performed or requested by the administrative authority showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw shall constitute noncompliance with this Subchapter, except in a case as provided for in Subsection D.5.c of this Section; and
 - c. for the case when the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be

less than 500 ppmw, but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of LAC 33:V.1753.A and 1765 shall be considered by the administrative authority together with the results of the waste determination performed or requested by the administrative authority in establishing compliance with this Subchapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1702 (September 1998).

Response: Cytac acknowledges the above citation. Cytac will perform a waste determination using direct measurement in accordance with applicable regulations.

§1753. Waste Determination Procedures

A. Waste Determination Procedure to Determine Average Volatile Organic (VO) Concentration of a Hazardous Waste at the Point of Waste Origination

1. An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of LAC 33:V.1751.C.1 from using air emission controls in accordance with standards specified in LAC 33:V.4727, as applicable to the waste management unit.
2. The average VO concentration of a hazardous waste at the point of waste origination may be determined in accordance with the procedures specified in LAC 33:V.4727.

B. Waste Determination Procedures for Treated Hazardous Waste

1. An owner or operator shall perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of LAC 33:V.1751.C.2 from using air emission controls in accordance with standards specified in LAC 33:V.1755 - 1761, as applicable to the waste management unit.
2. The waste determination for a treated hazardous waste shall be performed in accordance with the procedures specified in LAC 33:V.4727, as applicable to the treated hazardous waste.

- C. Procedure to Determine the Maximum Organic Vapor Pressure of a Hazardous Waste in a Tank
1. An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in LAC 33:V.1755.C.
 2. The maximum organic vapor pressure of the hazardous waste may be determined in accordance with the procedures specified in LAC 33:V.4727.
- D. The procedure for determining no detectable organic emissions for the purpose of complying with this Subchapter shall be conducted in accordance with the procedures specified in LAC 33:V.4727.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1704 (September 1998).

Response: Cytec acknowledges the above citation. Cytec will determine the average VO concentration for each hazardous waste in accordance with applicable regulations. Cytec will determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls, in accordance with applicable regulations. Additional information regarding the specific waste streams and waste management units is included in the following sections, as applicable.

§1755. Standards: Tanks

- A. The provisions of this Section apply to the control of air pollutant emissions from tanks for which LAC 33:V.1751.B references the use of this Section for such air emission control.

Response: Cytec acknowledges the above citation.

- B. The owner or operator shall control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:
1. for a tank that manages hazardous waste that meets all of the conditions specified in Subsection B.1.a - c of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in Subsection C of this Section or the Tank Level 2 controls specified in Subsection D of this Section:
 - a. the hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:
 - i. for a tank design capacity equal to or greater than 151 m³, the 3 maximum organic vapor pressure limit for the tank is 5.2 kPa;

- ii. for a tank design capacity equal to or greater than 75 m³, but less than 151 m³, the maximum organic vapor pressure limit for the tank is 27.6 kPa; 3
 - iii. for a tank design capacity less than 75 m³, the maximum organic vapor pressure limit for the tank is 76.6 kPa;
 - b. the hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with Subsection B.1.a of this Section; and
 - c. the hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in LAC 33:V.4721; and
2. for a tank that manages hazardous waste that does not meet all of the conditions specified in Subsection B.1.a - c of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of Subsection D of this Section. Examples of tanks required to use Tank Level 2 controls include a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in Subsection B.1.a of this Section.

Response: Cytec acknowledges the above citation. Cytec will control air pollutant emissions from each tank subject to this Section, as applicable. Currently all of the hazardous waste tanks meet the conditions for Tank Level 1 controls. The hazardous waste in the tank is not heated to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined, nor is the hazardous waste in the tank treated using a waste stabilization process. A summary of Cytec's hazardous waste tank maximum calculated organic vapor pressure and corresponding limits for Tank Level 1 control is included in Attachment D.

- C. Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in Subsection C.1 - 4 of this Section:
- 1. the owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in LAC 33:V.1753.C. Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in Subsection B.1.a of this Section, as applicable to the tank;

2. the tank shall be equipped with a fixed roof designed to meet the following specifications:
 - a. the fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch);
 - b. the fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall;
 - c. each opening in the fixed roof shall be either:
 - i. equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or
 - ii. connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and it shall be operating whenever hazardous waste is managed in the tank;
 - d. the fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed;
3. whenever a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:
 - a. opening of closure devices or removal of the fixed roof is allowed at the following times:
 - i. to provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank;
 - ii. to remove accumulated sludge or other residues from the bottom of the tank;
 - b. opening of a spring-loaded pressure-vacuum relief valve, conservation

vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations;

- c. opening of a safety device, as defined in LAC 33:V.4721, is allowed at any time conditions require doing so to avoid an unsafe condition;
4. the owner or operator shall inspect the air emission control equipment in accordance with the following requirements:
- a. the fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices;
 - b. the owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year, except under the special conditions provided for in Subsection L of this Section;
 - c. in the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection K of this Section; and
 - d. the owner or operator shall maintain a record of the inspection in accordance with the requirements specified in LAC 33:V.1765.B.

Response: Cytac acknowledges the above citation. Cytac determined the maximum organic vapor pressure for the hazardous waste to be managed in the tank using Tank Level 1 controls using the specified procedures. A summary of the maximum organic vapor pressure for each tank is included in Attachment D. Cytac will perform a new determination whenever there are significant changes to the hazardous waste managed in the tank. Nine of the tanks are equipped with a fixed roof and a scrubber. The 100-6 RCB Backwash Tank is equipped with a fixed roof and is vented to the Acrylonitrile Plant flare. Cytac will visually inspect the fixed roof and its closure devices to check for defects at least annually, or as provided by

LAC 33:V.1755.L., and maintain a record of the inspection. Cytac will repair any defects in accordance with the applicable requirements.

- D. Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:**
- 1. a fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in Subsection E of this Section;**
 - 2. a tank equipped with an external floating roof in accordance with the requirements specified in Subsection F of this Section;**
 - 3. a tank vented through a closed-vent system to a control device in accordance with the requirements specified in Subsection G of this Section;**
 - 4. a pressure tank designed and operated in accordance with the requirements specified in Subsection H of this Section; or**
 - 5. a tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in Subsection I of this Section.**

Response: Cytac acknowledges the above citation. The requirements of LAC 33:V.1755.D. do not currently apply to Cytac because Cytac is not currently using Tank Level 2 controls.

- E. The owner or operator who controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in Subsection E.1 - 3 of this Section.**
- 1. the tank shall be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:**
 - a. the internal floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports;**
 - b. the internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:**
 - i. a single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in LAC 33:V.4721; or**
 - ii. two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal;**
 - c. the internal floating roof shall meet the following specifications:**
 - i. each opening in a noncontact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and the rim space vents, is to provide a projection below the liquid surface;**
 - ii. each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic**

- bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains;
 - iii. each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening;
 - iv. each automatic bleeder vent and rim space vent shall be gasketed;
 - v. each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover; and
 - vi. each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover;
2. the owner or operator shall operate the tank in accordance with the following requirements:
- a. when the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical;
 - b. automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports; and
 - c. prior to filling the tank, each cover, access hatch, gauge float well, or lid on any opening in the internal floating roof shall be bolted or fastened closed (i.e., no visible gaps). Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting;
3. the owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:
- a. the floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the hazardous waste surface from the atmosphere; or the slotted membrane has more than 10 percent open area;
 - b. the owner or operator shall inspect the internal floating roof components as follows, except as provided in Subsection E.3.c of this Section:
 - i. visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill; and
 - ii. visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 10 years;

- c. as an alternative to performing the inspections specified in Subsection E.3.b of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 5 years;
- d. prior to each inspection required by Subsection E.3.b or c of this Section, the owner or operator shall notify the administrative authority in advance of each inspection to provide the administrative authority with the opportunity to have an observer present during the inspection. The owner or operator shall notify the administrative authority of the date and location of the inspection as follows:
 - i. prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the administrative authority at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection E.3.d.ii of this Section;
 - ii. when a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the administrative authority as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the administrative authority at least seven calendar days before refilling the tank;
- e. in the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection K of this Section; and
- f. the owner or operator shall maintain a record of the inspection in accordance with the requirements specified in LAC 33:V.1765.B.

Response: Cytac acknowledges the above citation. The requirements of LAC 33:V.1755.E. do not currently apply to Cytac because Cytac is not currently using a fixed roof tank with an internal floating roof.

- F. The owner or operator who controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in Subsection F.1 – 3 of this Section.
 - 1. the owner or operator shall design the external floating roof in accordance with the following requirements:
 - a. the external floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports;

- b. the floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal;
 - i. the primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in LAC 33:V.4721. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters (cm) per meter of tank 2 diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters (cm). If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface; and
 - ii. the secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters (cm) per meter of tank diameter, and the width of any portion of 2 these gaps shall not exceed 1.3 centimeters (cm); and
 - c. the external floating roof shall meet the following specifications:
 - i. except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface;
 - ii. except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid;
 - iii. each access hatch and each gauge float well shall be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position;
 - iv. each automatic bleeder vent and each rim space vent shall be equipped with a gasket;
 - v. each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening;
 - vi. each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal;
 - vii. each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole;
 - viii. each slotted guide pole shall be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere; and
 - ix. each gauge hatch and each sample well shall be equipped with a gasketed cover;
2. the owner or operator shall operate the tank in accordance with the following requirements:

- a. when the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical;
 - b. except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device must be open for access;
 - c. covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position;
 - d. automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports;
 - e. rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting;
 - f. the cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank;
 - g. the cover on each gauge hatch or sample well shall be secured in the closed position at all times except when the hatch or well must be opened for access; and
 - h. both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections;
3. the owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:
- a. the owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:
 - i. the owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years;
 - ii. the owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year;
 - iii. if a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank shall be considered an initial operation for the purposes of Subsection F.3.a.i and ii of this Section;
 - iv. the owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure:
 - (a). the seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports;

- (b). seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location;
 - (c). for a seal gap measured under Subsection F.3 of this Section, the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance;
 - (d). the total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually and then dividing the sum for each seal type by the nominal perimeter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in Subsection F.1.b of this Section;
 - v. in the event that the seal gap measurements do not conform to the specifications in Subsection F.1.b of this Section, the owner or operator shall repair the defect in accordance with the requirements of Subsection K of this Section; and
 - vi. the owner or operator shall maintain a record of the inspection in accordance with the requirements specified in LAC 33:V.1765.B;
 - b. the owner or operator shall visually inspect the external floating roof in accordance with the following requirements:
 - i. the floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices;
 - ii. the owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection L of this Section;
 - iii. in the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection K of this Section; and
 - iv. the owner or operator shall maintain a record of the inspection in accordance with the requirements specified in LAC 33:V.1765.B;

- c. prior to each inspection required by Subsection F.3.a or F.3.b of this Section, the owner or operator shall notify the administrative authority in advance of each inspection to provide the administrative authority with the opportunity to have an observer present during the inspection. The owner or operator shall notify the administrative authority of the date and location of the inspection as follows:
- i. prior to each inspection to measure external floating roof seal gaps as required under Subsection F.3.a of this Section, written notification shall be prepared and sent by the owner or operator so that it is received by the administrative authority at least 30 calendar days before the date the measurements are scheduled to be performed;
 - ii. prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the administrative authority at least 30 calendar days before refilling the tank, except when an inspection is not planned as provided for in Subsection F.3.c.iii of this Section; and
 - iii. when a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the administrative authority as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation stating why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the administrative authority at least seven calendar days before refilling the tank.

Response: Cytac acknowledges the above citation. The requirements of LAC 33:V.1755.F. do not currently apply to Cytac because Cytac is not currently using a tank with an external floating roof.

- G. The owner or operator who controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in Subsection G.1- 3 of this Section:
1. the tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:
 - a. the fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank;
 - b. each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in

- the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions;
- c. the fixed roof and its closure devices shall be made of suitable material that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed; and
 - d. the closed-vent system and control device shall be designed and operated in accordance with the requirements of LAC 33:V.1761; .
2. whenever a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:
- a. venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:
 - i. to provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operation. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank; and
 - ii. to remove accumulated sludge or other residues from the bottom of a tank;
 - b. opening of a safety device, as defined in LAC 33:V.4721, is allowed at all time conditions require doing so to avoid an unsafe condition;
3. the owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
- a. the fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollution emissions. Defects include, but are not limited to, visible cracks, holes, gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; or broken or missing hatches, access covers, caps, or other closure devices;
 - b. the closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in LAC 33:V.1761;

- c. the owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year, except for the special conditions provided for in Subsection L of this Section;
- d. in the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection K of this Section; and
- e. the owner or operator shall maintain a record of the inspection in accordance with the requirements specified in LAC 33:V.1765.B;

Response: Cytac acknowledges the above citation. Nine of the tanks are covered by a fixed roof and vented directly through a scrubber. The 100-6 RCB Backwash Tank is equipped with a fixed roof and is vented to the Acrylonitrile Plant flare. Other openings are equipped with a closure device maintained in the closed position except as allowed by the regulations, and designed to operate with no detectable organic emissions. Cytac visually inspects the air emission control equipment annually to check for defects and any repairs are made in compliance with applicable regulations. A record of the inspection is maintained as required.

- H. The owner or operator who controls air pollutant emissions by using a pressure tank shall meet the following requirements:
- 1. the tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity;
 - 2. all tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in LAC 33:V.1753.D; and
 - 3. whenever a hazardous waste is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except in the event that a safety device, as defined in LAC 33:V.1749, is required to open to avoid an unsafe condition.

Response: Cytac acknowledges the above citation. Cytac operates pressure filters that meet applicable requirements.

- I. The owner or operator who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in Subsection I.1 - 4 of this Section:
- 1. the tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical

means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in section 5.0 to "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually;

2. the enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in LAC 33:V.1761;
3. safety devices, as defined in LAC 33:V.4721, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of Subsection I.1 and 2 of this Section; and
4. the owner or operator shall inspect and monitor the closed-vent system and control device as specified in LAC 33:V.1761.

Response: Cytex acknowledges the above citation. The requirements of LAC 33:V.1755.i. do not currently apply to Cytex because Cytex does not currently use an enclosure vented through a closed-vent system to an enclosed combustion control device.

- J. The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:
1. transfer of hazardous waste, except as provided in Subsection J.2 of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to LAC 33:V.1757 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR part 63, subpart RR—National Emission Standards for Individual Drain Systems; and
 2. the requirements of Subsection J.1 of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:
 - a. the hazardous waste meets the average VO concentration conditions specified in LAC 33:V.1751.C.1 at the point of waste origination;
 - b. the hazardous waste has been treated by an organic destruction or removal process to meet the requirements in LAC 33:V.1751.C.2.

Response: Cytex acknowledges the above citation.

- K. The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of Subsection C.4, E.3, F.3, or G.3 of this Section as follows:

1. the owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair shall be completed as soon as possible, but no later than 45 calendar days after detection, except as provided in Subsection K.2 of this Section; and
2. repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

Response: Cytec acknowledges the above citation.

- L. Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subchapter, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:
1. in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:
 - a. prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required; and
 - b. develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of this Subchapter, as frequently as practicable during those times when a worker can safely access the cover; and
 2. in the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1704 (September 1998)

Response: Cytec acknowledges the above citation.

§1757. Standards: Surface Impoundments

- A. The provisions of this Section apply to the control of air pollutant emissions from surface impoundments for which LAC 33:V.1751.B references the use of this Section for such air emission control.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1757 do not apply to Cytec because Cytec does not operate surface impoundments to treat, store, or dispose of hazardous waste.

- B. The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:
1. a floating membrane cover in accordance with the provisions specified in Subsection C of this Section; or
 2. a cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in Subsection D of this Section.
- C. The owner or operator who controls air pollutant emissions from a surface impoundment using a floating membrane cover shall meet the requirements specified in Subsection C.1 - 3 of this Section.
1. the surface impoundment shall be equipped with a floating membrane cover designed to meet the following specifications:
 - a. the floating membrane cover shall be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid;
 - b. the cover shall be fabricated from a synthetic membrane material that is either:
 - i. high density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm); or
 - ii. a material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in Subsection C.1.b.i of this Section and chemical and physical properties that maintain the material integrity for the intended service life of the material;
 - c. the cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings;
 - d. except as provided for in Subsection C.1.e of this Section, each opening in the floating membrane cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device;
 - e. the floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain shall be equipped with a slotted membrane fabric cover that

- covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal; and
- f. the closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed;
2. whenever a hazardous waste is in the surface impoundment, the floating membrane cover shall float on the liquid and each closure device shall be secured in the closed position except as follows:
- a. opening of closure devices or removal of the cover is allowed at the following times:
- i. to provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable; and
- ii. to remove accumulated sludge or other residues from the bottom of the surface impoundment; and
- b. opening of a safety device, as defined in LAC 33:V.4721, is allowed at any time conditions require doing so to avoid an unsafe condition; and
3. the owner or operator shall inspect the floating membrane cover in accordance with the following procedures:
- a. the floating membrane cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices; and
- b. the owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year, except for the special conditions provided for in Subsection G of this Section;

- c. in the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection F of this Section; and
 - d. the owner or operator shall maintain a record of the inspection in accordance with the requirements specified in LAC 33:V.1765.C.
- D. The owner or operator who controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in Subsection D.1 - 3 of this Section.
 - 1. the surface impoundment shall be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:
 - a. the cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment;
 - b. each opening in the cover not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions using the procedure specified in LAC 33:V.1753.D;
 - c. the cover and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed; and
 - d. the closed-vent system and control device shall be designed and operated in accordance with the requirements of LAC 33:V.1761;
 - 2. whenever a hazardous waste is in the surface impoundment, the cover shall be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:
 - a. venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

- i. to provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment; and
 - ii. to remove accumulated sludge or other residues from the bottom of the surface impoundment;
 - b. opening of a safety device, as defined in LAC 33:V.4721, is allowed at any time conditions require doing so to avoid an unsafe condition;
 3. the owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
 - a. the surface impoundment cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices;
 - b. the closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in LAC 33:V.1761;
 - c. the owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year, except for the special conditions provided for in Subsection G of this Section;
 - d. in the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection F of this Section; and
 - e. the owner or operator shall maintain a record of the inspection in accordance with the requirements specified in LAC 33:V.1765.C.
- E. The owner or operator shall transfer hazardous waste to a surface impoundment subject to this Section in accordance with the following requirements:
 1. transfer of hazardous waste, except as provided in Subsection E.2 of this Section, to the surface impoundment from another surface impoundment subject to this Section or from a tank subject to LAC 33:V.1755 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the

requirements of 40 CFR part 63, subpart RR—National Emission Standards for Individual Drain Systems; and

2. the requirements of Subsection E.1 of this Section do not apply when transferring a hazardous waste to the surface impoundment under either of the following conditions:
 - a. the hazardous waste meets the average VO concentration conditions specified in LAC 33:V.1751.C.1 at the point of waste origination;
 - b. the hazardous waste has been treated by an organic destruction or removal process to meet the requirements in LAC 33:V.1751.C.2.
- F. The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of Subsection C.3 or D.3 of this Section:
1. the owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair shall be completed as soon as possible, but no later than 45 calendar days, after detection except as provided in Subsection F.2 of this Section;
 2. repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the surface impoundment stops operation. Repair of the defect shall be completed before the process or unit resumes operation.
- G. Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subchapter, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:
1. prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required; and
 2. develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable section of this Subchapter as frequently as practicable during those times when a worker can safely access the cover.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1710 (September 1998).

§1759. Standards: Containers

- A. The provisions of this Section apply to the control of air pollutant emissions from containers for which LAC 33:V.1751.B references the use of this Section for such air emission control.

Response: Cytec acknowledges the above citation.

B. General Requirements

1. The owner or operator shall control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in Subsection B.2 of this Section apply to the container:
 - a. for a container having a design capacity greater than 0.1 m and less 3 than or equal to 0.46 m , the owner or operator shall control air pollutant emissions 3 from the container in accordance with the Container Level 1 standards specified in Subsection C of this Section;
 - b. for a container having a design capacity greater than 0.46 m that is 3 not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection C of this Section; and
 - c. for a container having a design capacity greater than 0.46 m that is in 3 light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in Subsection D of this Section.
2. When a container having a design capacity greater than 0.1 m is used for 3 treatment of a hazardous waste by a waste stabilization process, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in Subsection E of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

Response: Cytec acknowledges the above citation.

C. Container Level 1 Standards

1. A container using Container Level 1 controls is one of the following:
 - a. a container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation, as specified in Subsection F of this Section;
 - b. a container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible

holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a "portable tank" or bulk cargo container equipped with a screw-type cap);

- c. an open-top container in which an organic-vapor-suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor-suppressing foam.
2. A container used to meet the requirements of Subsection C.1.b or c of this Section shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices shall include organic vapor permeability, the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.
3. Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:
 - a. opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
 - i. in the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation; and
 - ii. in the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaving the immediate vicinity of the container, or the shutdown of the process generating the material being added to the container, whichever condition occurs first;
 - b. opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
 - i. for the purpose of meeting the requirements of this Section an empty container, as defined in LAC 33:V.109, may be open to the atmosphere at any time (i.e., covers and closure devices are not

- required to be secured in the closed position on an empty container);
- ii. in the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in LAC 33:V.109, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first;
 - c. opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container;
 - d. opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations; and
 - e. opening of a safety device, as defined in LAC 33:V.4721, is allowed at any time conditions require doing so to avoid an unsafe condition.
4. The owner or operator of containers using Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:
- a. in the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied (i.e., does not meet the conditions for an empty container as specified in LAC 33:V.109) within 24 hours after

- the container is accepted at the facility, the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection C.4.c of this Section;
- b. in the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and, thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection C.4.c of this Section;
 - c. when a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible, but no later than five calendar days, after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.
5. The owner or operator shall maintain at the facility a copy of the procedure used to determine that containers with a capacity of 0.46 m or greater, 3 which do not meet applicable DOT regulations as specified in Subsection F of this Section, are not managing hazardous waste in light material service.

Response: Cytac acknowledges the above citation. Cytac will ensure that Level 1 containers are equipped with covers or closure devices so that there are no visible holes or gaps, as applicable to the container. The covers or closure devices will be maintained in the closed position except as allowed by regulation. The containers will be inspected initially for defects and repairs made as required by the regulations. In general, containers larger than 0.46 m³ meet applicable DOT regulations. However, if a container larger than 0.46 m³ does not meet applicable DOT regulations, Cytac would use the existing Waste Analysis Plan and/or generator knowledge to demonstrate that the container is not managing hazardous waste in light material service.

D. Container Level 2 Standards

- 1. A container using Container Level 2 controls is one of the following:
 - a. a container that meets the applicable DOT regulations on packaging hazardous materials for transportation, as specified in Subsection F of this Section;

- b. a container that operates with no detectable organic emissions as defined in LAC 33:V.4721 and determined in accordance with the procedure specified in Subsection G of this Section;
 - c. a container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR part 60, appendix A, Method 27 in accordance with the procedure specified in Subsection H of this Section.
- 2. Transfer of hazardous waste in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the EPA considers to meet the requirements of this Paragraph include using any one of the following: a sub merged-fill pipe or other submerged-fill method to load liquids into the container, a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations, or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- 3. Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container and secure and maintain each closure device in the closed position except as follows:
 - a. opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
 - i. in the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation;
 - ii. in the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaving the immediate vicinity of the container, or the shutdown of the process generating the material being added to the container, whichever condition occurs first;
 - b. opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
 - i. for the purpose of meeting the requirements of this Section an empty container, as defined in LAC 33:V.109, may be open to the atmosphere at any time (i.e., covers and closure devices are not

- required to be secured in the closed position on an empty container);
- ii. in the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in LAC 33:V.109, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first;
 - c. opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container;
 - d. opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations;
 - e. opening of a safety device, as defined in LAC 33:V.4721, is allowed at any time conditions require doing so to avoid an unsafe condition.
4. The owner or operator of containers using Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:
- a. in the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied (i.e., does not meet the conditions for an empty container as specified in LAC 33:V.109) within 24 hours after

- the container arrives at the facility, the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection D.4.c of this Section;
- b. in the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and, thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection D.4.c of this Section;
 - c. when a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible, but no later than five calendar days, after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

Response: Cytec acknowledges the above citation. Cytec will ensure that containers meeting the Level 2 requirements are equipped with covers or closure devices secured and maintained in the close position except as allowed by the regulations. The containers will be inspected initially for defects and repairs made as required by the regulations.

E. Container Level 3 Standards

1. A container using Container Level 3 controls is one of the following:
 - a. a container that is vented directly through a closed-vent system to a control device in accordance with the requirements of Subsection E.2.b of this Section;
 - b. a container that is vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the requirements of Subsection E.2.a and b of this Section.
2. The owner or operator shall meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:
 - a. the container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access, passage of containers through the enclosure by conveyor or other mechanical means,

- entry of permanent mechanical or electrical equipment, or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in section 5.0 to "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually; and
- b. the closed-vent system and control device shall be designed and operated in accordance with the requirements of LAC 33:V.1761.
 3. Safety devices, as defined in LAC 33:V.4721, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of Subsection E.1 of this Section.
 4. Owners and operators using Container Level 3 controls in accordance with the provisions of this Subchapter shall inspect and monitor the closed-vent systems and control devices as specified in LAC 33:V.1761.
 5. Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subchapter shall prepare and maintain the records specified in LAC 33:V.1765.D.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1759.E. do not currently apply to Cytec because Cytec does not currently use containers with a capacity of greater than 0.1 m³ for treatment of a hazardous waste by a waste stabilization process. In the event that Cytec does chose to perform waste stabilization in containers, Cytec will comply with applicable regulations.

- F. For the purpose of compliance with Subsection C.1.a or D.1.a of this Section, containers shall be used that meet the applicable DOT regulations on packaging hazardous materials for transportation as follows:
1. the container meets the applicable requirements specified in 49 CFR part 178—Specifications for Packaging or 49 CFR part 179—Specifications for Tank Cars;
 2. hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107, subpart B—Exemptions; 49 CFR part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173—Shippers—General Requirements for Shipments and Packages; and 49 CFR part 180—Continuing Qualification and Maintenance of Packagings;
 3. for the purpose of complying with this Subchapter, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in Subsection F.4 of this Section; and
 4. for a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with this Subchapter, an owner or operator

may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).

Response: Cytec acknowledges the above citation.

G. The owner or operator shall use the procedure specified in LAC 33:V.1753.D for determining when a container operates with no detectable organic emissions for the purpose of complying with Subsection D.1.b of this Section.

1. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to, the interface of the cover rim and the container wall, the periphery of any opening on the container or container cover and its associated closure device, and the sealing seat interface on a spring-loaded pressure-relief valve.
2. The test shall be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.

Response: Cytec acknowledges the above citation.

H. The owner or operator shall use the procedure for determining a container to be vapor-tight using Method 27 of 40 CFR part 60, appendix A for the purpose of complying with Subsection D.1.c of this Section.

1. The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A.
2. A pressure measurement device shall be used that has a precision of ± 2.5 mmwater and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
3. If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within five minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1712 (September 1998)

Response: Cytec acknowledges the above citation.

§1761. Standards: Closed-Vent Systems and Control Devices

- A. This Section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this Subchapter.

Response: Cytec acknowledges the above citation.

- B. The closed-vent system shall meet the following requirements:

1. shall route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in Subsection C of this Section;
2. shall be designed and operated in accordance with the requirements specified in LAC 33:V.1709.K;
3. in the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in Subsection B.3.a of this Section or a seal or locking device as specified in Subsection B.3.b of this Section. For the purpose of complying with this Paragraph, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure-relief valves, and other fittings used for safety purposes are not considered to be bypass devices:
 - a. if a flow indicator is used to comply with this Subsection, the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For this paragraph, a flow indicator means a device that indicates the presence of either gas or vapor flow in the bypass line;
 - b. if a seal or locking device is used to comply with this Subsection, the device shall be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position;
3. shall be inspected and monitored by the owner or operator in accordance with the procedure specified in LAC 33:V.1709.L.

Response: Cytec acknowledges the above citation. The gases, vapors, and fumes emitted from the hazardous waste in the waste management unit are routed through scrubbers or a HON compliance flare not equipped with a bypass.

- C. The control device shall meet the following requirements:

1. shall be one of the following devices:
 - a. a control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;
 - b. an enclosed combustion device designed and operated in accordance with the requirements of LAC 33:V.1709.C; or
 - c. a flare designed and operated in accordance with the requirements of LAC 33:V.1709.D;
2. the owner or operator who elects to use a closed-vent system and control device to comply with the requirements of this Section shall comply with the requirements specified in Subsection C.2.a - f of this Section:
 - a. periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of Subsection C.1.a, b, or c of this Section, as applicable, shall not exceed 240 hours per year;
 - b. the specifications and requirements in Subsection C.1.a, b, or c of this Section for control devices do not apply during periods of planned routine maintenance;
 - c. the specifications and requirements in Subsection C.1.a, b, or c of this Section for control devices do not apply during a control device system malfunction;
 - d. the owner or operator shall demonstrate compliance with the requirements of Subsection C.2.a of this Section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of Subsection C.1.a, b, or c of this Section, as applicable, shall not exceed 240 hours per year) by recording the information specified in LAC 33:V.1765.E.1.e;
 - e. the owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants; and
 - f. the owner or operator shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally) except in cases when it is necessary to vent the gases, vapors, and/or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions;
3. the owner or operator using a carbon adsorption system to comply with Subsection C.1 of this Section shall operate and maintain the control device in accordance with the following requirements:
 - a. following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of LAC 33:V.1709.G or H; and

- b. all carbon removed from the control device shall be managed in accordance with the requirements of LAC 33:V.1709.N;
- 4. an owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with Subsection C.1 of this Section shall operate and maintain the control device in accordance with the requirements of LAC 33:V.1709.J;
- 5. the owner or operator shall demonstrate that a control device achieves the performance requirements of Subsection C.1 of this Section as follows:
 - a. an owner or operator shall demonstrate, using either a performance test as specified in Subsection C.5.c of this Section or a design analysis as specified in Subsection C.5.d of this Section, the performance of each control device except for the following:
 - i. a flare;
 - ii. a boiler or process heater with a design heat input capacity of 44 megawatts or greater;
 - iii. a boiler or process heater into which the vent stream is introduced with the primary fuel;
 - iv. a boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under LAC 33:V.Chapter 5 and has designed and operates the unit in accordance with the requirements of LAC 33:V.Chapter 30; or
 - v. a boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of LAC 33:V.Chapter 30;
 - b. an owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in LAC 33:V.1709.E;
 - c. for a performance test conducted to meet the requirements of Subsection C.5.a of this Section, the owner or operator shall use the test methods and procedures specified in LAC 33:V.1711.C.1 - 4;
 - d. for a design analysis conducted to meet the requirements of Subsection C.5.a of this Section, the design analysis shall meet the requirements specified in LAC 33:V.1713.B.4.c; and
 - e. the owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of Subsection C.1 of this Section based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal;
- 6. if the owner or operator and the administrative authority do not agree on a demonstration of control device performance using a design analysis, then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of Subsection C.5.c of this Section. The administrative authority may choose to have an authorized representative observe the performance test; and

7. the control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in LAC 33:V.1709.F.2 and L . The readings from each monitoring device required by LAC 33:V.1709.F.2 shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1716 (September 1998).

Response: Cytec acknowledges the above citation. The scrubbers are a control device designed and operated to reduce the total organic content. The primary operating parameter to identify proper operation is the flow of water through the scrubber, which is monitored on a daily basis. The flare operating parameters is a continuous temperature monitor of the pilot flame.

§1763. Inspection and Monitoring Requirements

- A. The owner or operator shall inspect and monitor air emission control equipment used to comply with this Chapter in accordance with the applicable requirements specified in LAC 33:V.1755 - 1761.
- B. The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by Subsection A of this Section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under LAC 33:V.1509.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1718 (September 1998).

Response: Cytec acknowledges the above citation. Air emission equipment is inspected in accordance with applicable regulations. A written plan and schedule for this equipment has been incorporated into the Inspection Plan included in Appendix P of the June 1, 1998 submittal.

§1765. Recordkeeping Requirements

- A. Each owner or operator of a facility subject to requirements in this Subchapter shall record and maintain the information specified in Subsections B - I of this Section, as applicable to the facility. Except for air emission control equipment design documentation and information required by Subsection I of this Section, records required by this Section shall be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation shall be maintained in the operating record until the air emission control equipment is replaced or otherwise

no longer in service. Information required by Subsection I of this Section shall be maintained in the operating record for as long as the tank or container is not using air emission controls specified in LAC 33:V.1755 - 1761 in accordance with the conditions specified in LAC 33:V.1755.D.

Response: Cytec acknowledges the above citation.

- B.** The owner or operator of a tank using air emission controls in accordance with the requirements of LAC 33:V.1755 shall prepare and maintain records for the tank that include the following information:
- 1.** for each tank using air emission controls in accordance with the requirements of LAC 33:V.1755, the owner or operator shall record:
 - a.** a tank identification number (or other unique identification description as selected by the owner or operator); and
 - b.** a record for each inspection required by LAC 33:V.1755 that includes the following information:
 - i.** date inspection was conducted; and
 - ii.** for each defect detected during the inspection, include the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of LAC 33:V.1755, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected; and
 - 2.** in addition to the information required by Subsection B.1 of this Section, the owner or operator shall record the following information, as applicable to the tank:
 - a.** the owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in LAC 33:V.1755.C shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of LAC 33:V.1755.C. The records shall include the date and time the samples were collected, the analysis method used, and the analysis results;
 - b.** the owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in LAC 33:V.1755.E shall prepare and maintain documentation describing the floating roof design;
 - c.** owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in LAC 33:V.1755.F shall prepare and maintain the following records:
 - i.** documentation describing the floating roof design and the dimensions of the tank; and
 - ii.** records for each seal gap inspection required by LAC 33:V.1755.F.3 describing the results of the seal gap

- measurements. The records shall include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in LAC 33:V.1755.F.1, the records shall include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary; and
- d. each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in LAC 33:V.1755.I shall prepare and maintain the following records:
 - i. records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B; and
 - ii. records required for the closed-vent system and control device in accordance with the requirements of Subsection E of this Section.

Response: Cytec acknowledges the above citation. Records documenting the tank identification and inspection including the date the inspection was conducted and any defects are included in Attachment E. Records for the maximum organic vapor pressure of the hazardous waste in the tanks and an example of the analytical report which includes the date and time the samples were collected, the analysis method used, and the analysis results are included in Attachment D. The analytical data is collected weekly for some waste streams and parameters and quarterly for others.

- C. The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of LAC 33:V.1757 shall prepare and maintain records for the surface impoundment that include the following information:
 1. a surface impoundment identification number (or other unique identification description as selected by the owner or operator);
 2. documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design and certification by the owner or operator that the cover meets the specifications listed in LAC 33:V.1757.C;
 3. a record for each inspection required by LAC 33:V.1757 that includes the following information:
 - a. date inspection was conducted; and
 - b. for each defect detected during the inspection, include the following, the location of the defect, a description of the defect, the date of detection,

and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of LAC 33:V.1757.F, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected; and

4. for a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator shall prepare and maintain the records specified in Subsection E of this Section.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1757 do not apply to Cytec because Cytec does not operate surface impoundments to treat, store or dispose of hazardous waste.

- D. The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of LAC 33:V.1759 shall prepare and maintain records that include the following information:

1. records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B; and
2. records required for the closed-vent system and control device in accordance with the requirements of Subsection E of this Section.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1765.D. do not currently apply to Cytec because Cytec does not currently use containers with a capacity of greater than 0.1 m³ for treatment of a hazardous waste by a waste stabilization process. In the event that Cytec does chose to perform waste stabilization in containers, Cytec will comply with applicable regulations.

- E. The owner or operator using a closed-vent system and control device in accordance with the requirements of LAC 33:V.1761 shall prepare and maintain records that include documentation for the closed-vent system and control device that includes:

1. certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in Subsection E.2 of this Section or by performance tests as specified in Subsection E.3 of this Section when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur;
2. if a design analysis is used, then design documentation as specified in LAC 33:V.1713.B.4. The documentation shall include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with LAC 33:V.1713.B.4.c and

- certification by the owner or operator that the control equipment meets the applicable specifications;
3. if performance tests are used, then a performance test plan as specified in LAC 33:V.1713.B.3 and all test results;
 4. information as required by LAC 33:V.1713.C.1 and 2, as applicable;
 5. an owner or operator shall record, on a semiannual basis, the information specified in Subsection E.5.a and b of this Section for those planned routine maintenance operations that would require the control device not to meet the requirements of LAC 33:V.1761.C.1.a, b, or c, as applicable:
 - a. a description of the planned routine maintenance that is anticipated to be performed for the control device during the next six-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods; and
 - b. a description of the planned routine maintenance that was performed for the control device during the previous six-month period. This description shall include the type of maintenance performed and the total number of hours during those six months that the control device did not meet the requirements of LAC 33:V.1761.C.1.a, b, or c, as applicable, due to planned routine maintenance;
 6. an owner or operator shall record the information specified in Subsection E.6.a-c of this Section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of LAC 33:V.1761.C.1.a, b, or c, as applicable:
 - a. the occurrence and duration of each malfunction of the control device system;
 - b. the duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning; and
 - c. actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation; and
 7. records of the management of carbon removed from a carbon adsorption system conducted in accordance with LAC 33:V.1761.C.3.b.

Response: Cytec acknowledges the above citation. A copy of the design information for the tank scrubbers is included in Attachment F. The scrubber water flow rate is monitored daily to ensure that it is within the operating range. A copy of the performance test for the Acrylonitrile (AN) Plant flare is also included in Attachment F. The pilot flame temperature is monitored continuously.

F. The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of LAC 33:V.1751.C shall prepare and maintain the following records, as applicable:

1. for tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in LAC 33:V.1751.C.1 or 2, the owner or operator shall record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of LAC 33:V.1753;
2. for tanks, surface impoundments, or containers exempted under the provisions of LAC 33:V.1751.C.2.g or h, the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

Response: Cytec acknowledges the above citation.

G. An owner or operator designating a cover as "unsafe to inspect and monitor" in accordance with LAC 33:V.1755.L or 1757.G shall record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor"; the explanation for each cover stating why the cover is unsafe to inspect and monitor; and the plan and schedule for inspecting and monitoring each cover.

Response: Cytec acknowledges the above citation. The requirement of LAC 33:V.1765.G. does not apply to Cytec because Cytec does not currently have any "unsafe to inspect or monitor" components.

H. The owner or operator of a facility that is subject to this Subchapter and to the control device standards in 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V may elect to demonstrate compliance with the applicable sections of this Subchapter by documentation either in accordance with this Subchapter or the provisions of 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR part 60 or 61 duplicates the documentation required by this Section.

Response: Cytec acknowledges the above citation.

I. For each tank or container not using air emission controls specified in LAC 33:V.1755 - 1761 in accordance with the conditions specified in LAC 33:V.1747.D, the owner or operator shall record and maintain the following information:

1. a list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in LAC 33:V.1747.D.1;

2. a description of how the hazardous waste containing the organic peroxide compounds identified in Subsection I.1 of this Section are managed at the facility in tanks and containers. This description shall include:
 - a. for the tanks used at the facility to manage this hazardous waste, sufficient information shall be provided to describe, for each tank, a facility identification number for the tank; the purpose and placement of this tank in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the tanks; and
 - b. for containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to describe a facility identification number for the container or group of containers, the purpose and placement of this container or group of containers in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste handled in the containers;
3. an explanation of why managing the hazardous waste containing the organic peroxide compounds identified in Subsection I.1 of this Section in the tanks and containers as described in Subsection I.2 of this Section would create an undue safety hazard if the air emission controls, as required under LAC 33:V.1755 - 1761, are installed and operated on these waste management units. This explanation shall include the following information:
 - a. for tanks used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks, and why installation of safety devices on the required air emission controls, as allowed under this Subchapter, will not address those situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides; and
 - b. for containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain how use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the containers, and why installation of safety devices on the required air emission controls, as allowed under this Subchapter, will not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1718 (September 1998).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.1765.I. do not apply to Cytec because Cytec does not manufacture organic peroxides.

§1767. Reporting Requirements

- A. Each owner or operator managing hazardous waste in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of LAC 33:V.1751.C shall report to the administrative authority each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the conditions specified in LAC 33:V.1751.C.1 or 2, as applicable. Examples of such occurrences include placing in the waste management unit a hazardous waste having an average VO concentration equal to or greater than 500 ppmw at the point of waste origination or placing in the waste management unit a treated hazardous waste of which the organic content has been reduced by an organic destruction or removal process that fails to achieve the applicable conditions specified in LAC 33:V.1751.C.2.a - f. The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.
- B. Each owner or operator using air emission controls on a tank in accordance with the requirements LAC 33:V.1755.C shall report to the administrative authority each occurrence when hazardous waste is managed in the tank in noncompliance with the conditions specified in LAC 33:V.1755.B. The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.
- C. Each owner or operator using a control device in accordance with the requirements of LAC 33:V.1761 shall submit a semiannual written report to the administrative authority, except as provided for in Subsection D of this Section. The report shall describe each occurrence during the previous six-month period when either:
1. a control device is operated continuously for 24 hours or longer in compliance with the applicable operating values defined in LAC 33:V.1713.C.4; or
 2. a flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in LAC 33:V.1709.D. The written report shall include the EPA identification number, facility name and address, an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to

correct the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

- D. A report to the administrative authority in accordance with the requirements of Subsection C of this Section is not required for a six-month period during which all control devices subject to this Chapter are operated by the owner or operator such that:
1. during no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in LAC 33:V.1713.C.4; and
 2. no flare was operated with visible emissions for five minutes or longer in a two-hour period, as defined in LAC 33:V.1709.D.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1720 (September 1998).

Response: Cytec acknowledges the above citation.

Appendix Table 1

Compounds With Henry's Law Constant Less Than 0.1 Y/X [At 25EC]

Compound name CAS No.

Acetaldo 107-89-1

Acetamide 60-35-5

2-Acetylaminofluorene 53-96-3

3-Acetyl-5-hydroxypiperidine

3-Acetylpyrrolidine 618-42-8

1-Acetyl-2-thiourea 591-08-2

Acrylamide 79-06-1

Acrylic acid 79-10-7

Adenine 73-24-5

Adipic acid 124-04-9

Adiponitrile 111-69-3

Alachlor 15972-60-8

Aldicarb 116-06-3

Ametryn 834-12-8

4-Aminobiphenyl 92-67-1

4-Aminopyridine 504-24-5

Aniline 62-53-3

o-Anisidine 90-04-0

Anthraquinone 84-65-1

Atrazine 1912-24-9

Benzeneearsonic acid 98-05-5

Benzenesulfonic acid 98-11-3

Benzidine 92-87-5

Benzo (a) anthracene 56-55-3

Benzo (k) fluoranthene 207-08-9

Benzoic acid 65-85-0

Benzo (g,h,i) perylene 191-24-2

Benzo (a) pyrene 50-32-8

Benzyl alcohol 100-51-6

gamma-BHC 58-89-9

Bis (2-ethylhexyl) phthalate 117-81-7

Bromochloromethyl acetate

Bromoxynil 1689-84-5

Butyric acid 107-92-6

Caprolactam (hexahydro-2H-azepin-2-one) 105-60-2

Catechol (o-dihydroxybenzene) 120-80-9

Cellulose 9004-34-6

Cell wall

Chlorohydrin (3 Chloro-1,2-propanediol) 96-24-2

Chloroacetic acid 79-11-8

2-Chloroacetophenone 93-76-5

p-Chloroaniline 106-47-8
p-Chlorobenzophenone 134-85-0
Chlorobenzylate 510-15-6
p-Chloro-m-cresol (6-chloro-m-cresol) 59-50-7
3-Chloro-2,5-diketopyrrolidine
Chloro-1,2-ethane diol
4-Chlorophenol 106-48-9
Chlorophenol polymers 95-57-8 &
(2-chlorophenol and 4-chlorophenol) 106-48-9
1-(o-Chlorophenyl) thiourea 5344-82-1
Chrysene 218-01-9
Citric acid 77-92-9
Creosote 8001-58-9
m-Cresol 108-39-4
o-Cresol 95-48-7
p-Cresol 106-44-5
Cresol (mixed isomers) 1319-77-3
4-Cumylphenol 27576-86
Cyanide 57-12-5
4-Cyanomethyl benzoate
Diazinon 333-41-5
Dibenzo (a, h) anthracene 53-70-3
Dibutylphthalate 84-74-2
2,5-Dichloroaniline (N,N'-Dichloroaniline) 95-82-9
2,6-Dichlorobenzonitrile 1194-65-6
2,6-Dichloro-4-nitroaniline 99-30-9
2,5-Dichlorophenol 333-41-5
3,4-Dichlorotetrahydrofuran 3511-19
Dichlorvos (DDVP) 62737
Diethanolamine 111-42-2
N,N-Diethylaniline 91-66-7
Diethylene glycol 111-46-6
Diethylene glycol dimethyl ether
(dimethyl Carbitol) 111-96-6
Diethylene glycol monobutyl ether
(butyl Carbitol) 112-34-5
Diethylene glycol monoethyl ether acetate
(Carbitol acetate) 112-15-2
Diethylene glycol monoethyl ether
(Carbitol Cellosolve) 111-90-0
Diethylene glycol monomethyl ether
(methyl Carbitol) 111-77-3
N,N'-Diethylhydrazine 1615-80-1
Diethyl (4-methylumbelliferyl) thiophosphate 299-45-6
Diethyl phosphorothioate 126-75-0
N,N'-Diethyl propionamide 15299-99-77
Dimethoate 60-51-5
2,3-Dimethoxystrychnidin-10-one 357-57-3

4-Dimethylaminoazobenzene 60-11-7
7,12-Dimethylbenz(a)anthracene 57-97-6
3,3-Dimethylbenzidine 119-93-7
Dimethylcarbamoyl chloride 79-44-7
Dimethyldisulfide 624-92-0
Dimethylformamide 68-12-2
1,1 -Dimethylhydrazine 57-14-7
Dimethylphthalate 131-11-3
Dimethylsulfone 67-71-0
Dimethylsulfoxide 67-68-5
4,6-Dinitro-o-cresol 534-52-1
1,2-Diphenylhydrazine 122-66-7
Dipropylene glycol (1,1'-oxydi-2-propanol) 110-98-5
Endrin 72-20-8
Epinephrine 51-43-4
mono-Ethanolamine 141-43-5
Ethyl carbamate (urethane) 5-17-96
Ethylene glycol 107-21-1
Ethylene glycol monobutyl ether
(butyl Cellosolve) 111-76-2
Ethylene glycol monoethyl ether (Cellosolve) 110-80-5
Ethylene glycol monoethyl ether acetate
(Cellosolve acetate) 111-15-9
Ethylene glycol monomethyl ether
(methyl Cellosolve) 109-86-4
Ethylene glycol monophenyl ether
(phenyl Cellosolve) 122-99-6
Ethylene glycol monopropyl ether
(propyl Cellosolve) 2807-30-9
Ethylene thiourea (2-imidazolidinethione) 9-64-57
4-Ethylmorpholine 100-74-3
3-Ethylphenol 620-17-7
Flouroacetic acid, sodium salt 62-74-8
Formaldehyde 50-00-0
Formamide 75-12-7
Formic acid 64-18-6
Fumaric acid 110-17-8
Glutaric acid 110-94-1
Glycerin (Glycerol) 56-81-5
Glycidol 556-52-5
Glycinamide 598-41-4
Glyphosate 1071-83-6
Guthion 86-50-0
Hexamethylene-1,6-diisocyanate
(1,6-Disocyanatohexane) 822-06-0
Hexamethyl phosphoramidate 680-31-9
Hexanoic acid 142-62-1
Hydrazine 302-01-2

Hydrocyanic acid 74-90-8
Hydroquinone 123-31-9
Hydroxy-2-propionitrile (hydracrylonitrile) 109-78-4
Indeno (1,2, 3-cd) pyrene 193-39-5
Lead acetate 301-04-2
Lead subacetate (lead acetate, monobasic) 1335-32-6
Leucine 61-90-5
Malathion 121-75-5
Maleic acid 110-16-7
Maleic anhydride 108-31-6
Mesityl oxide 141-79-7
Methane sulfonic acid 75-75-2
Methomyl 16752-77-5
p-Methoxyphenol 150-76-5
Methyl acrylate 96-33-3
4,4'-Methylene-bis-(2-chloroaniline) 101-14-4
4,4'-Methylenediphenyl diisocyanate
(diphenyl methane diisocyanate) 101-68-8
4,4'-Methylenedianiline 101-77-9
Methylene diphenylamine (MDA)
5-Methylfurfural 620-02-0
Methylhydrazine 60-34-4
Methyliminoacetic acid
Methyl methane sulfonate 66-27-3
1-Methyl-2-methoxyaziridine
Methylparathion 298-00-0
Methyl sulfuric acid (sulfuric acid,
dimethyl ester) 77-78-1
4-Methylthiophenol 106-45-6
Monomethylformamide (N-methylformamide) 123-39-7
Nabam 142-59-6
alpha-Naphthol 90-15-3
beta-Naphthol 135-19-3
alpha-Naphthylamine 134-32-7
beta-Naphthylamine 91-59-8
Neopentyl glycol (dimethylolpropane) 126-30-7
Niacinamide 98-92-0
o-Nitroaniline 88-74-4
Nitroglycerin 55-63-0
2-Nitrophenol 88-75-5
4-Nitrophenol 100-02-7
N-Nitrosodimethylamine 62-75-9
Nitrasoguanidine 674-81-7
N-Nitroso-n-methylurea 684-93-5
N-Nitrosomorpholine (4-Nitrosomorpholine) 59-89-2
Oxalic acid 144-62-7
Parathion 56-38-2
Pentaerythritol 115-77-5

Phenacetin 62-44-2
Phenol 108-95-2
Phenylacetic acid 103-82-2
m-Phenylene diamine 108-45-2
o-Phenylene diamine 95-54-5
p-Phenylene diamine 106-50-3
Phenyl mercuric acetate 62-38-4
Phorate 298-02-2
Phthalic anhydride 85-44-9
alpha-Piciline (2-methyl pyridine) 109-06-8
1,3-Propane sultone 1120-71-4
Beta-Propiolactone 57-57-8
Proporur (Baygon)
Propylene glycol 57-55-6
Pyrene 129-00-0
Pyridinium bromide 39416-48-3
Quinoline 91-22-5
Quinone (p-benzoquinone) 106-51-4
Resorcinol 108-46-3
Simazine 122-34-9
Sodium acetate 127-09-3
Sodium formate 141-53-7
Strychnine 57-24-9
Succinic acid 110-15-6
Succinimide 123-56-8
Sulfanilic acid 121-47-1
Terephthalic acid 100-21-0
Tetraethyldithiopyrophosphate 3689-24-5
Tetraethylenepentamine 112-57-2
Thiofanox 39196-18-4
Thiosemicarbazide 79-19-6
2,4-Toluediamine 95-80-7
2,6-Toluediamine 823-40-5
3,4-Toluediamine 496-72-0
2,4-Toluene diisocyanate 584-84-9
p-Toluic acid 99-94-5
m-Toluidine 108-44-1
1,1,2-Trichloro-1,2,2-Trifluoroethane 76-13-1
Triethanolamine 102-71-6
Triethylene glycol dimethyl ether
Tripropylene glycol 24800-44-0
Warfarin 81-81-2
3,4-Xylenol (3,4-dimethylphenol) 95-65-8

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1720 (September 1998).

Response: Cytec acknowledges the above citation.

Chapter 37 Financial Requirements

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 37. Financial Requirements

§3707. Financial Assurance for Closure

* * *

[See Prior Text in June 1, 1998 Submittal]

F. Financial Test and Corporate Guarantee for Closure

1. An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Section. To pass this test the owner or operator must meet the criteria of either of the following:
 - a. The owner or operator must have:
 - i. two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and
 - ii. net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and
 - iii. tangible net worth of at least \$10 million; and
 - iv. assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.
 - b. The owner or operator must have:
 - i. a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and
 - ii. tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and
 - iii. tangible net worth of at least \$10 million; and
 - iv. assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

Response: Cytec demonstrates passing the financial test by meeting the criteria specified in LAC 33:V.3707.F.1.b. A copy of Cytec's most recent

financial assurance demonstration is included in Appendix W of the June 1, 1998 submittal.

* * *

[See Prior Text in June 1, 1998 Submittal]

§3711. Financial Assurance for Post-Closure Care

* * *

[See Prior Text in June 1, 1998 Submittal]

F. Financial Test and Corporate Guarantee for Post-Closure Care

1. An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Subsection. To pass this test the owner or operator must meet the criteria of either of the following:
 - a. The owner or operator must have:
 - i. two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and
 - ii. net working capital and tangible net worth each at least six times the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and
 - iii. tangible net worth of at least \$10 million; and
 - iv. assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.
 - b. The owner or operator must have:
 - i. a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by *Standard and Poor's* or Aaa, Aa, A, or Baa as issued by *Moody's*; and
 - ii. tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and
 - iii. tangible net worth of at least \$10 million; and
 - iv. assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

Response: Cytec demonstrates passing the financial test by meeting the criteria specified in LAC 33:V.3711.F.1.b. A copy of Cytec's most recent financial assurance demonstration is included in Appendix W of the June 1, 1998 submittal.

* * *

[See Prior Text in June 1, 1998 Submittal]

Subchapter D. Insurance Requirements

§3715. Liability Requirements

* * *

[See Prior Text in June 1, 1998 Submittal]

F. Financial Test for Liability Coverage

1. An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Subsection. To pass this test the owner or operator must meet the criteria of either LAC 33:V.3715.F.1.a or b below:
 - a. The owner or operator must have:
 - i. net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by the test; and
 - ii. tangible net worth of at least \$10 million; and
 - iii. assets located in the United States amounting to either at least 90 percent of his total assets or at least six times the amount of liability coverage to be demonstrated by this test.
 - b. The owner or operator must have:
 - i. a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by *Standard and Poor's* or Aaa, Aa, A, or Baa as issued by *Moody's*; and
 - ii. tangible net worth of at least \$10 million; and
 - iii. tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and
 - iv. assets located in the United States amounting to either at least 90 percent of total assets or at least six times the amount of liability coverage to be demonstrated by this test.

Response: Cytec demonstrates passing the financial test by meeting the criteria specified in LAC 33:V.3715.F.1.b. A copy of Cytec's most recent financial assurance demonstration is included in Appendix W of the June 1, 1998 submittal.

* * *

[See Prior Text in June 1, 1998 Submittal]

Subchapter F. Financial and Insurance Instruments

§3719. Wording of the Instruments

* * *

[See Prior Text in June 1, 1998 Submittal]

- G. **Liability Coverage Guarantee.** A letter from the chief financial officer, as specified in LAC 33:V.3715.F or 4411, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Secretary

Louisiana Department of Environmental Quality

P.O. Box 82263

Baton Rouge, LA 70884-2263

Dear [Sir or Madam]:

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage [insert "and closure and/or post-closure care" if applicable] as specified in LAC 33:V.Chapter 37 or 43.

[Fill out the following paragraph regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its EPA Identification Number, name, and address.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "non-sudden" or "both sudden and non-sudden"] accidental occurrences is being demonstrated through the financial test specified in LAC 33:V.Chapter 37 or 43.

The firm identified above guarantees, through the guarantee specified in LAC 33:V.Chapter 37 or 43, liability coverage for [insert "sudden" or "non-sudden" or "both sudden and non-sudden"] accidental occurrences at the following facilities owned or operated by the following: . The firm identified above is [insert one or more: (1) the direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ; or (3) engaged in the following substantial business relationship with the owner or operator , and receiving the following value in consideration of this guarantee]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

[If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following five paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in LAC 33:V.Chapters 37 and 43. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:
2. The firm identified above guarantees, through the guarantee specified in LAC 33:V.Chapters 37 and 43, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:
3. In states other than Louisiana, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in LAC 33:V.Chapters 37 and 43. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility:
4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to the U.S. Environmental Protection Agency or to a state through the financial test or any other financial assurance mechanism in LAC 33:V.Chapters 37 and 43 or equivalent or substantially equivalent state mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:
5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under the applicable regulations of the Louisiana Department of Natural Resources and is assured through a financial test. The current closure cost estimates as required by LDNR are shown for each facility:

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year. The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed year, ended [date].

[Fill in Part A if you are using the financial test to demonstrate coverage only for the liability requirements under LAC 33:V.Chapters 37 and 43.]

PART A. LIABILITY COVERAGE FOR SUDDEN AND NON-SUDDEN OCCURRENCES

[Fill in Alternative I if the first criteria of LAC 33:V.3707.F.1 or 4411.F.1 are used. Fill in Alternative II if the second criteria of LAC 33:V.3707.F.1 or 4411.F.1 are used.]
ALTERNATIVE I

1. Amount of annual aggregate liability coverage to be demonstrated: \$
- *2. Current assets: \$ _____
- *3. Current liabilities: \$ _____
- *4. Net working capital (line 2 minus line 3): \$ _____
- *5. Tangible net worth: \$
- *6. Total assets in the U.S. (required only if less than 90 percent of the firm's assets are located in the U.S.): \$

YES NO

7. Is line 5 at least \$10 million?
- *8. Is line 4 at least six times line 1 ?
9. Is line 5 at least six times line 1 ?
10. Are at least 90 percent of assets located in the U.S.? If not, complete line 11.
11. Is line 6 at least six times line 1 ?

ALTERNATIVE II

1. Amount of annual aggregate liability coverage to be demonstrated: \$
2. Current bond rating of most recent issuance and name of rating service:
3. Date of issuance of bond:
4. Date of maturity of bond:
- *5. Tangible net worth: \$
- *6. Total assets in U.S. (required only if less than 90 percent of assets are located in the U.S.): \$

YES NO

7. Is line 5 at least \$10 million?
- *8. Is line 5 at least six times line 1 ?
9. Are at least 90 percent of assets located in the U.S.? If not, complete line 10.
10. Is line 6 at least six times line 1 ?

[Fill in Part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.]

PART B. CLOSURE OR POST-CLOSURE CARE AND LIABILITY COVERAGE

[Fill in Alternative I if the first criteria of LAC 33:V.3707.F.1, 3711.F.1, and 3715.F.1 or if the first criteria of LAC 33:V.4403.E.1 or 4407.E.1 and 4411.F.1 are used. Fill in Alternative II if the second criteria of LAC 33:V.3707.F.1, 3711.F.1, and 3715.F.1 or if the second criteria of LAC 33:V.4403.E.1 or 4407.E.1 and 4411.F.1 are used.]

ALTERNATIVE I

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above): \$
2. Amount of annual aggregate liability coverage to be demonstrated: \$
3. Sum of lines 1 and 2: \$
- *4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6): \$
- *5. Tangible net worth: \$
- *6. Net worth: \$
- *7. Current assets: \$ _____
- *8. Current liabilities: \$ _____
9. Net working capital (line 7 minus line 8): \$ _____
10. The sum of net income plus depreciation, depletion, and amortization: \$

- * 11. Total assets in the U.S. (required only if less than 90 percent of firm's assets are located in the U.S.): \$

YES NO

12. Is line 5 at least \$10 million?
13. Is line 5 at least six times line 3?
14. Is line 9 at least six times line 3?
* 15. Are at least 90 percent of assets located in the U.S.? If not, complete line 16.
16. Is line 11 at least six times line 3?
17. Is line 4 divided by line 6 less than 2.0?
18. Is line 10 divided by line 4 greater than 0.1?
19. Is line 7 divided by line 8 greater than 1.5?

ALTERNATIVE II

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above): \$
2. Amount of annual aggregate liability coverage to be demonstrated: \$
3. Sum of lines 1 and 2: \$
4. Current bond rating of most recent issuance and name of rating service:
5. Date of issuance of bond:
6. Date of maturity of bond:
*7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line): \$
*8. Total assets in the U.S. (required only if less than 90 percent of assets are located in the U.S.): \$

YES NO

9. Is line 7 at least \$10 million?
*10. Is line 7 at least six times line 3 ?
11. Are at least 90 percent of assets located in the U.S.? If not, complete line 12.
12. Is line 8 at least six times line 3?

I hereby certify that the wording of this letter is identical to the wording specified in LAC 33:V.3719.G as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

Response: Cytac uses a liability coverage guarantee worded consistent with LAC 33:V.3719.G., Part B, Alternate II. A copy of Cytac's most recent financial assurance demonstration is included in Appendix W of the June 1, 1998 submittal.

* * *

[See Prior Text in June 1, 1998 Submittal]

Chapter 38 Universal Wastes

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY
Part V. Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 38. Universal Wastes

Subchapter A. General

§3801. Scope and Applicability

- A. This Chapter establishes requirements for managing batteries, pesticides, thermostats, lamps, and antifreeze as described in LAC 33:V.3813. This Chapter provides an alternative set of management standards in lieu of regulations under LAC 33:V.Chapters 1, 3, 5, 7, 9, 11, 13, 15, 17, 18, 19, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 37, 39, 40, 41, 43, 49, and 51.
- B. Persons managing household wastes that are exempt under LAC 33:V.105.D.2.a and are also of the same type as the universal wastes as defined in this Chapter may, at their option, manage these wastes under the requirements of this Chapter.
- C. Persons who commingle the wastes described in Subsection B of this Section together with universal waste regulated under this Chapter, must manage the commingled waste under the requirements of this Chapter.
- D. Small quantity generator wastes that are regulated under LAC 33:V.Chapter 39 and are also of the same type as the universal wastes defined in LAC 33:V.3813 may, at their option, manage these wastes under the requirements of this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:568 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1108 (June 1998), LR 24:1496 (August 1998), LR 24:1759 (September 1998).

Response: Cytec acknowledges the regulations in LAC 33:V. Chapter 38. Cytec manages universal wastes in compliance with applicable regulations, but not in such a manner that would require being included in this hazardous waste permit application.

§3803. Applicability - Batteries

A. Batteries Covered Under this Chapter

- 1. The requirements of this Chapter apply to persons managing batteries, as described in LAC 33:V.3813, except those listed in Subsection B of this Section.
- 2. Spent lead-acid batteries which are not managed under LAC 33:V.Chapter 41 are subject to management under this Chapter.

B. Batteries Not Covered Under this Chapter. The requirements of this Chapter do not apply to persons managing the following batteries:

1. spent lead-acid batteries that are managed under LAC 33:V.Chapter 41;
2. batteries, as described in LAC 33:V.3813, that are not yet wastes under LAC 33:V.4901, including those that do not meet the criteria for waste generation in Subsection C of this Section; and
3. batteries, as described in this Chapter, that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in LAC 33:V.4903.

C. Generation of Waste Batteries

1. A used battery becomes a waste on the date it is discarded (e.g., when sent for reclamation).
2. An unused battery becomes a waste on the date the handler decides to discard it.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:568 (May 1997).

Response: Cytac acknowledges the above cited regulations.

§3805. Applicability - Pesticides

A. Pesticides Covered Under this Chapter. The requirements of this Section apply to persons managing pesticides, as described in LAC 33:V.3813, meeting the following conditions, except those listed in Subsection B of this Section:

1. recalled pesticides that are:
 - a. stocks of a suspended and canceled pesticide that are part of a voluntary or mandatory recall under FIFRA section 19(b), including, but not limited to those owned by the registrant responsible for conducting the recall; or
 - b. stocks of a suspended or canceled pesticide, or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.
2. stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.

B. Pesticides Not Covered Under this Chapter. The requirements of this Chapter do not apply to persons managing the following pesticides:

1. recalled pesticides described in Subsection A.1 of this Section, and unused pesticide products described in Subsection A.2 of this Section, that are managed by farmers in compliance with LAC 33:V. 1101.D (LAC 33:V.1101.D addresses pesticides disposed of on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label, providing the container is triple rinsed in accordance with the definition of empty container under LAC 33:V.109);
2. pesticides not meeting the conditions set forth in Subsection A of this Section. These pesticides must be managed in compliance with the hazardous waste regulations in LAC 33:V.Subpart 1;
3. pesticides that are not wastes under Subsection C of this Section, including those that do not meet the criteria for waste generation in Subsection C of this Section or those that are not wastes as described in Subsection D of this Section; and
4. pesticides that are not hazardous waste. A pesticide is a hazardous waste if it is listed in LAC 33:V.4901 or if it exhibits one or more of the characteristics identified in LAC 33:V.4903.

C. When a Pesticide Becomes a Waste.

1. A recalled pesticide described in Subsection A of this Section becomes a waste on the first date on which both of the following conditions apply:
 - a. the generator of the recalled pesticide agrees to participate in the recall; and
 - b. the person conducting the recall decides to discard (i.e., burn the pesticide for energy recovery).
2. An unused pesticide product described in Subsection A.2 of this Section becomes a waste on the date the generator decides to discard it.

D. Pesticides That Are Not Wastes. The following pesticides are not wastes:

1. recalled pesticides described in Subsection A.1 of this Section, provided that the person conducting the recall:
 - a. has not made a decision to discard (i.e., burn for energy recovery) the pesticide. Until such a decision is made, the pesticide does not meet the definition of "solid waste" under LAC 33:V.109; thus the pesticide is not a hazardous waste and is not subject to hazardous waste requirements, including this Chapter. This pesticide remains subject to the requirements of FIFRA; or
 - b. has made a decision to use a management option that, under LAC 33:V.109, does not cause the pesticide to be a solid waste (i.e., the selected option is use (other than use constituting disposal) or reuse (other than burning for energy recovery), or reclamation). Such a pesticide is not a solid waste and therefore is not a hazardous waste, and is not

subject to the hazardous waste requirements including this Chapter. This pesticide, including a recalled pesticide that is exported to a foreign destination for use or reuse, remains subject to the requirements of FIFRA;

2. unused pesticide products described in Subsection A.2 of this Section, if the generator of the unused pesticide product has not decided to discard (i.e., burn for energy recovery) them. These pesticides remain subject to the requirements of FIFRA.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:569 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1108 (June 1998).

Response: Cytec acknowledges the above cited regulations.

§3807. Applicability - Mercury Thermostats

- A. Thermostats Covered Under this Chapter. The requirements of this Chapter apply to persons managing thermostats, as described in LAC 33:V.3813, except those listed in Subsection B of this Section.
- B. Thermostats Not Covered Under this Chapter. The requirements of this Chapter do not apply to persons managing the following thermostats:
 1. thermostats that are not yet wastes under LAC 33:V.Chapter 49. Subsection C of this Section describes when thermostats become wastes; and
 2. thermostats that are not hazardous waste. A thermostat is a hazardous waste if it exhibits one or more of the characteristics identified in LAC 33:V.4903.
- C. Generation of Waste Thermostats
 1. A used thermostat becomes a waste on the date it is discarded (i.e., sent for reclamation).
 2. An unused thermostat becomes a waste on the date the handler decides to discard it.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:569 (May 1997).

Response: Cytec acknowledges the above cited regulations.

§3809. Applicability - Lamps

- A. Lamps Covered Under this Chapter. The requirements for this Chapter apply to persons managing lamps as described in LAC 33:V.3813, except those listed in Subsection B of this Section.
- B. Lamps Not Covered Under this Chapter. The requirements of this Chapter do not apply to persons managing the following lamps:
 - 1. lamps, as described in LAC 33:V.3813, that are not yet wastes under LAC 33:V.4901, including those that do not meet the criteria for waste generation in Subsection C of this Section; and
 - 2. lamps, as described in this Chapter, that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in LAC 33:V.4903.
- C. Generation of Waste Lamps
 - 1. A used lamp becomes a waste on the date it is discarded (i.e., sent for reclamation).
 - 2. An unused lamp becomes a waste on the date the handler decides to discard it.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1760 (September 1998).

Response: Cytac acknowledges the above cited regulations.

§3811. Applicability - Antifreeze

- A. Antifreeze Covered Under this Chapter. The requirements for this Chapter apply to persons managing antifreeze as described in LAC 33:V.3813, except those listed in Subsection B of this Section.
- B. Antifreeze Not Covered Under this Chapter. The requirements of this Chapter do not apply to persons managing the following antifreeze:
 - 1. antifreeze, as described in LAC 33:V.3813, that is not yet a waste under LAC 33:V.4901, including those that do not meet the criteria for waste generation in Subsection C of this Section; and
 - 2. antifreeze, as described in this Chapter, that is not yet a hazardous waste. Antifreeze is a hazardous waste if it exhibits one or more of the characteristics identified in LAC 33:V.4903.
- C. Generation of Waste Antifreeze
 - 1. Used or unused antifreeze becomes a waste on the date it is discarded (e.g., when sent for reclamation).

2. Waste antifreeze is a hazardous waste if it exhibits one or more of the characteristics identified in LAC 33:V.4903.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1760 (September 1998).

Response: Cytac acknowledges the above cited regulations.

§3813. Definitions

Antifreeze—an ethylene glycol based mixture that lowers the freezing point of water and is used as an engine coolant.

Battery—a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

Destination Facility—a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in LAC 33:V.3821.A and C and 3843.A and C. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

FIFRA—The Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 -136y).

Generator—any person, by site, whose act or process produces hazardous waste identified or listed in LAC 33:V.Chapter 49 or whose act first causes a hazardous waste to become subject to regulation.

Lamp—the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet (UV), visible, and infra-red (IR) regions of the electromagnetic spectrum. Examples of common electric lamps include, but are not limited to, incandescent, fluorescent, high intensity discharge, and neon lamps.

Large Quantity Handler of Universal Waste—a universal waste handler (as defined in this Section) who accumulates 5,000 kilograms or more total of universal waste (batteries, pesticides, thermostats, lamps, or antifreeze, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 5,000 kilograms or more total of universal waste is accumulated.

Mercury-Containing Lamp—an electric lamp in which mercury is purposely introduced by the manufacturer for the operation of the lamp.

On-Site—the same or geographically contiguous property which may be divided by public or private right-of-way, provided that the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right of way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, are also considered on-site property.

Pesticide—any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

1. is a new animal drug under FFDCA section 201(w); or
2. is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug; or
3. is an animal feed under FFDCA section 201(x) that bears or contains any substances described by Paragraph 1 or 2 of this Subsection.

Small Quantity Handler of Universal Waste—a universal waste handler (as defined in this Section) who does not accumulate more than 5,000 kilograms total of universal waste (batteries, pesticides, thermostats, lamps, or antifreeze, calculated collectively) at any time.

Thermostat—a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of LAC 33:V.3821.C.2 or 3843.C.2.

Universal Waste—any of the following hazardous wastes that are subject to the universal waste requirements of this Chapter:

1. batteries as described in LAC 33:V.3803;
2. pesticides as described in LAC 33:V.3805;
3. thermostats as described in LAC 33:V.3807;
4. lamps as described in LAC 33:V.3809; and
5. antifreeze as described in LAC 33:V.3811.

Universal Waste Handler—a generator (as defined in this Section) of universal waste; or the owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination. A universal waste handler does not include a person who treats (except under the provisions of LAC 33:V.3821.A or C, or 3843.A or C), disposes of, or recycles universal waste; or a person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

Universal Waste Transfer Facility—any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for 10 days or less.

Universal Waste Transporter—a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:570 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1760 (September 1998).

Response: Cytec acknowledges the above cited regulations.

Subchapter B. Standards for Small Quantity Handlers of Universal Waste

§3815. Applicability

This Subchapter applies to small quantity handlers of universal waste (as defined in LAC 33:V.3813).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:570 (May 1997).

Response: Cytec acknowledges the above cited regulations.

§3817. Prohibitions

A small quantity handler of universal waste is:

1. prohibited from disposing of universal waste; and
2. prohibited from diluting or treating universal waste, except by responding to releases as provided in LAC 33:V.3829; or by managing specific wastes as provided in LAC 33:V.3821.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:571 (May 1997).

Response: Cytec acknowledges the above cited regulations. Cytec is currently a small quantity handler of universal waste.

§3819. Notification

A small quantity handler of universal waste is not required to notify the department of universal waste handling activities.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:571 (May 1997).

Response: Cytec acknowledges the above cited regulations.

§3821. Waste Management

- A. Universal Waste Batteries.** A small quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:
1. a small quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;
 2. a small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not reached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):
 - a. sorting batteries by type;
 - b. mixing battery types in one container;
 - c. discharging batteries so as to remove the electric charge;
 - d. regenerating used batteries;
 - e. disassembling batteries or battery packs into individual batteries or cells;
 - f. removing batteries from consumer products; or
 - g. removing electrolyte from batteries; and
 3. a small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in LAC 33:V.4903.
 - a. If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it is subject to all applicable requirements of these regulations. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to LAC 33:V.Chapter 11.
 - b. If the electrolyte or other solid waste does not exhibit a characteristic of hazardous waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local Solid Waste Regulations.

- B. Universal Waste Pesticides.** A small quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:
1. a container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or
 2. a container that does not meet the requirements of Subsection B.1 of this Section, provided that the unacceptable container is overpacked in a container that does meet the requirements of Subsection B.1 of this Section or
 3. a tank that meets the requirements of LAC 33:V.Chapter 19 except for LAC 33:V.1915.C; or
 4. a transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.
- C. Universal Waste Thermostats.** A small quantity handler of universal waste must manage universal waste thermostats in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:
1. a small quantity handler of universal waste must contain any universal waste thermostat that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the thermostat, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;
 2. a small quantity handler of universal waste may remove mercury-containing ampules from universal waste thermostats, provided the handler:
 - a. removes the ampules in a manner designed to prevent breakage of the ampules;
 - b. removes ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);
 - c. ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of LAC 33:V.1109.E;
 - d. immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of LAC 33:V.1109.E;

- e. ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;
 - f. ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;
 - g. stores removed ampules in closed, non-leaking containers that are in good condition;
 - h. packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation; and
- 3. a small quantity handler of universal waste who removes mercury-containing ampules from thermostats must determine whether the mercury or clean-up residues resulting from spills or leaks, and/or other solid waste generated as a result of the removal of mercury-containing ampules (e.g., remaining thermostat units) exhibit a characteristic of hazardous waste identified in LAC 33:V.4903.
 - a. If the mercury, residues, and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of these regulations. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it subject to LAC 33:V.Chapter 11.
 - b. If the mercury, residues, and/or other solid waste does not exhibit a characteristic of hazardous waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local Solid Waste Regulations.
- D. **Universal Waste Lamps.** A small quantity handler of universal waste must manage universal waste lamps in a way that prevents releases of any universal wastes or a component of any universal waste to the environment, as follows:
 - 1. a small quantity handler of universal waste must contain unbroken lamps in packaging that will minimize breakage during normal handling conditions; and
 - 2. a small quantity handler of universal waste must contain broken lamps in packaging that will minimize the releases of lamp fragments and residues.
- E. **Universal Waste Antifreeze.** A small quantity handler of universal waste must manage universal waste antifreeze in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste antifreeze must be contained in one or more of the following:
 - 1. a container that remains closed, structurally sound, and compatible with the antifreeze and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;
 - 2. a container that does not meet the requirements of Subsection E.1 of this

Section, provided that the unacceptable container is overpacked in a container that does meet the requirements of Subsection E.1 of this Section;

3. a tank that meets the requirements of LAC 33:V.1915.C; or
4. a transport vehicle or vessel that is closed, structurally sound, and compatible with the antifreeze and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:571 (May 1997). Amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1760 (September 1998).

Response: Cytec acknowledges the above cited regulations.

§3823. Labeling/Marking

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

1. universal waste batteries (e.g. each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)."
2. a container, (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in LAC 33:V.3805.A.1 are contained must be labeled or marked clearly with:
 - a. the label that was on or accompanied the product as sold or distributed; and
 - b. the words "Universal Waste - Pesticide(s)" or "Waste - Pesticide(s)."
3. a container, tank, or transport vehicle or vessel in which unused pesticide products as described in LAC 33:V.3805.A.2 are contained must be:
 - a. labeled or marked clearly with:
 - i. the label that was on the product when purchased, if still legible;
 - ii. the appropriate label as required under the U.S. Department of Transportation Regulation 49 CFR part 172; or
 - iii. another label prescribed or designated by the waste pesticide collection program administered or recognized by the state; and
 - b. the words "Universal Waste - Pesticide(s)" or "Waste - Pesticide(s)."
4. universal waste thermostats (e.g., each thermostat), or a container in which the thermostats are contained, must be labeled or marked clearly with any one of the

following phrases: "Universal Waste - Mercury Thermostat(s)," or "Waste Mercury Thermostat(s)," or "Used Mercury thermostat(s)."

5. universal waste lamps (i.e., each lamp), or a container in which the lamps are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Lamps," or "Waste Lamps," or "Used Lamps."
6. universal waste antifreeze, or a container in which the antifreeze is contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Antifreeze," or "Waste Antifreeze," or "Used Antifreeze."

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:572 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1761 (September 1998).

Response: Cytac acknowledges the above cited regulations.

§3825. Accumulation Time Limits

- A. A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of Subsection B of this Section are met.
- B. A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.
- C. A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:
 1. placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
 2. marking or labeling each individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;
 3. maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;

4. maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;
5. placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or
6. any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:572 (May 1997).

Response: Cytac acknowledges the above cited regulations.

§3827. Employee Training

A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:573 (May 1997).

Response: Cytac acknowledges the above cited regulations.

§3829. Response to Releases

- A. A small quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.
- B. A small quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of these regulations. The handler is considered the generator of the material resulting from the release, and must manage it in compliance with LAC 33:V.Chapter 11.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:573 (May 1997).

Response: Cytac acknowledges the above cited regulations.

§3831. Off-Site Shipments

- A. A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.
- B. If a small quantity handler of universal waste self-transportes universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of Subchapter D of this Chapter while transporting the universal waste.
- C. If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR Parts 171-180, a small quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable U.S. Department of Transportation Regulations under 49 CFR parts 172 - 180.
- D. Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.
- E. If a small quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:
 - 1. receive the waste back when notified that the shipment has been rejected, or
 - 2. agree with the receiving handler on a destination facility to which the shipment will be sent.
- F. A small quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:
 - 1. send the shipment back to the originating handler, or
 - 2. if agreed to by both the originating and receiving handler, send the shipment to a destination facility.
- G. If a small quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the administrative authority of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The administrative authority will provide instructions for managing the hazardous waste.
- H. If a small quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local Solid Waste Regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:573 (May 1997).

Response: Cytec acknowledges the above cited regulations.

§3833. Tracking Universal Waste Shipments

A small quantity handler of universal waste is not required to keep records of shipments of universal waste.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:573 (May 1997).

Response: Cytec acknowledges the above cited regulations.

§3835. Exports

A small quantity handler of universal waste who sends universal waste to a foreign destination other than to those OECD countries specified in LAC 33:V.1113.I.1.a (in which case the handler is subject to the requirements of LAC 33:V.Chapter 11.Subchapter B), must:

1. comply with the requirements applicable to a primary exporter in LAC 33:V.1113.D, G.1.a - d, G.1.f, G.2, and H;
2. export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in LAC 33:V.1113; and
3. provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:573 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:684 (April 1998).

Response: Cytec acknowledges the above cited regulations.

Subchapter C. Standards for Large Quantity Handlers of Universal Waste

§3837. Applicability

This Subchapter applies to large quantity handlers of universal waste (as defined in LAC 33:V.3813).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:573 (May 1997).

Response: Cytec acknowledges the regulations cited in LAC 33:V.Chpater 38, Subchapter C. However, the requirements of LAC 33:V.3838 through 3857 do not apply to Cytec because is not currently classified as a large quantity handler of universal waste.

§3839. Prohibitions

A large quantity handler of universal waste is:

1. prohibited from disposing of universal waste; and
2. prohibited from diluting or treating universal waste, except by responding to releases as provided in LAC 33:V.3851; or by managing specific wastes as provided in LAC 33:V.3843.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:574 (May 1997).

§3841. Notification

A. Except as provided in Subsection A.1 and 2 of this Section, a large quantity handler of universal waste must have sent written notification of universal waste management to the administrative authority, and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.

1. A large quantity handler of universal waste who has already notified EPA of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify under this Section.
2. A large quantity handler of universal waste who manages recalled universal waste pesticides as described in LAC 33:V.3805.A.1 and who has sent notification to EPA as required by 40 CFR part 165 is not required to notify for those recalled universal waste pesticides under this Section.

B. This notification must include:

1. the universal waste handler's name and mailing address;
2. the name and business telephone number of the person at the universal waste handler's site who should be contacted regarding universal waste management activities;
3. the address or physical location of the universal waste management activities;

4. a list of all of the types of universal waste managed by the handler (e.g, batteries, pesticides, thermostats, lamps, antifreeze); and
5. a statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time and the types of universal waste (e.g, batteries, pesticides, thermostats, lamps, antifreeze) the handler is accumulating above this quantity.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:574 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1761 (September 1998).

§3843. Waste Management

- A. Universal Waste Batteries.** A large quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:
1. a large quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;
 2. a large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):
 - a. sorting batteries by type;
 - b. mixing battery types in one container;
 - c. discharging batteries so as to remove the electric charge;
 - d. regenerating used batteries;
 - e. disassembling batteries or battery packs into individual batteries or cells;
 - f. removing batteries from consumer products; or
 - g. removing electrolyte from batteries; and
 3. a large quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in LAC 33:V.4903.
 - a. If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of these regulations. The handler is considered the

generator of the hazardous electrolyte and/or other waste and is subject to LAC 33:V.Chapter 11.

- b. If the electrolyte or other solid waste does not exhibit a characteristic of hazardous waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local Solid Waste Regulations.

B. **Universal Waste Pesticides.** A large quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:

1. a container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or
2. a container that does not meet the requirements of Subsection B.1 of this Section, provided that the unacceptable container is overpacked in a container that does meet the requirements of Subsection B.1 of this Section; or
3. a tank that meets the requirements of LAC 33:V.Chapter 19, except for LAC 33:V.1915.C; or
4. a transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

C. **Universal Waste Thermostats.** A large quantity handler of universal waste must manage universal waste thermostats in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

1. a large quantity handler of universal waste must contain any universal waste thermostat that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the thermostat, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;
2. a large quantity handler of universal waste may remove mercury-containing ampules from universal waste thermostats provided the handler:
 - a. removes the ampules in a manner designed to prevent breakage of the ampules;
 - b. removes ampules only over or in a containment device (e.g., tray or pan sufficient to contain any mercury released from an ampule in case of breakage);
 - c. ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of LAC 33:V.1109;

- d. immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of LAC 33:V.1109;
 - e. ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;
 - f. ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;
 - g. stores removed ampules in closed, non-leaking containers that are in good condition;
 - h. packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation; and
 3. a large quantity handler of universal waste who removes mercury-containing ampules from thermostats must determine whether the mercury or clean-up residues resulting from spills or leaks and/or other solid waste generated as a result of the removal of mercury-containing ampules (e.g., remaining thermostat units) exhibit a characteristic of hazardous waste identified in LAC 33:V.4903:
 - a. if the mercury, residues, and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of these regulations. The handler is considered the generator of the mercury, residues, and/or other waste and is subject to LAC 33:V.Chapter 11;
 - b. if the mercury, residues, and/or other solid waste does not exhibit a characteristic of hazardous waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local Solid Waste Regulations.
- D. Universal Waste Lamps. A large quantity handler of universal waste must manage universal waste lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:
1. a large quantity handler of universal waste must contain unbroken lamps in packaging that will minimize breakage during normal handling conditions; and
 2. a large quantity handler of universal waste must contain broken lamps in packaging that will minimize the releases of lamp fragments and residues.
- E. Universal Waste Antifreeze. A large quantity handler of universal waste must manage universal waste antifreeze in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste antifreeze must be contained in one or more of the following:
1. a container that remains closed, structurally sound, and compatible with the antifreeze and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;

2. a container that does not meet the requirements of Subsection E.1 of this Section, provided that the unacceptable container is overpacked in a container that does meet the requirements of Subsection E.1 of this Section;
3. a tank that meets the requirements of LAC 33:V.Chapter 19, except for LAC 33:V.1915.C;
4. a transport vehicle or vessel that is closed, structurally sound, and compatible with the antifreeze and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:574 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1761 (September 1998).

§3845. Labeling/Marking

A large quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

1. Universal waste batteries (e.g., each battery), or a container or tank in which the batteries are contained, must be labeled or marked clearly with the any one of the following phrases: "Universal Waste - Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies);"
2. A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in LAC 33:V.3805.A.1 are contained must be labeled or marked clearly with:
 - a. the label that was on or accompanied the product as sold or distributed; and
 - b. the words "Universal Waste - Pesticide(s)" or "Waste - Pesticide(s)."
3. A container, tank, or transport vehicle or vessel in which unused pesticide products as described in LAC 33:V.3805.A.2 are contained must be:
 - a. labeled or marked clearly with:
 - i. the label that was on the product when purchased, if still legible;
 - ii. appropriate label as required under the U.S. Department of Transportation Regulation 49 CFR part 172; or
 - iii. another label prescribed or designated by the pesticide collection program; and
 - b. the words "Universal Waste - Pesticide(s)" or "Waste - Pesticide(s)."
4. Universal waste thermostats (e.g., each thermostat), or a container or tank in which the thermostats are contained, must be labeled or marked clearly with any

one of the following phrases: "Universal Waste - Mercury Thermostat(s)," or "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)."

5. Universal waste lamps (i.e., each lamp), or a container in which the lamps are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Lamps," or "Waste Lamps," or "Used lamps."
6. Universal waste antifreeze, or a container in which the antifreeze is contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Antifreeze," or "Waste Antifreeze," or "Used Antifreeze."

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:575 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1761 (September 1998).

§3847. Accumulation Time Limits

- A. A large quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of Subsection B of this Section are met.
- B. A large quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.
- C. A large quantity handler of universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:
 1. placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
 2. marking or labeling the individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;
 3. maintaining an inventory system on-site that identifies the date the universal waste being accumulated became a waste or was received;
 4. maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

5. placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or
6. any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:575 (May 1997).

§3849. Employee Training

A large quantity handler of universal waste must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:576 (May 1997).

§3851. Response to Releases

- A. A large quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.
- B. A large quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of these regulations. The handler is considered the generator of the material resulting from the release, and is subject to LAC 33:V.Chapter 11.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:576 (May 1997).

§3853. Off-site Shipments

- A. A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.
- B. If a large quantity handler of universal waste self-transportes universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of Subchapter D of this Chapter while transporting the universal waste.

- C. If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR Parts 171-180, a large quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable U.S. Department of Transportation Regulations under 49 CFR parts 172-180.
- D. Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.
- E. If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:
 - 1. receive the waste back when notified that the shipment has been rejected; or
 - 2. agree with the receiving handler on a destination facility to which the shipment will be sent.
- F. A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:
 - 1. send the shipment back to the originating handler; or
 - 2. if agreed to by both the originating and receiving handler, send the shipment to a destination facility.
- G. If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the administrative authority of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The administrative authority will provide instructions for managing the hazardous waste.
- H. If a large quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local Solid Waste Regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:576 (May 1997).

§3855. Tracking Universal Waste Shipments

- A. **Receipt of Shipments.** A large quantity handler of universal waste must keep a record of each shipment of universal waste received at the facility. The record may take the form

of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:

1. the name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;
2. the quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats, lamps, antifreeze); and
3. the date of receipt of the shipment of universal waste.

B. Shipments Off-Site. A large quantity handler of universal waste must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent must include the following information:

1. the name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;
2. the quantity of each type of universal waste sent (e.g., batteries, pesticides, thermostats, lamps, antifreeze); and
3. the date the shipment of universal waste left the facility.

C. Record Retention

1. A large quantity handler of universal waste must retain the records described in Subsection A of this Section for at least three years from the date of receipt of a shipment of universal waste.
2. A large quantity handler of universal waste must retain the records described in Subsection B of this Section for at least three years from the date a shipment of universal waste left the facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:576 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1762 (September 1998)

§3857. Exports

A large quantity handler of universal waste who sends universal waste to a foreign destination other than to those OECD countries specified in LAC 33:V.1113.I.1.a (in which case the handler is subject to the requirements of LAC 33:V.Chapter 11.Subchapter B) must:

1. comply with the requirements applicable to a primary exporter in LAC 33:V.1113.D, G.1.a - d, G.1.f, G.2, and H;

2. export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in LAC 33:V.1113; and
3. provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:577 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:685 (April 1998).

Subchapter D. Standards for Universal Waste Transporters.

§3859. Applicability

This Subchapter applies to universal waste transporters (as defined in LAC 33:V.3813).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:577 (May 1997).

Response: Cytec acknowledges the regulations cited in LAC 33:V.Chapter 38 Subchapter D. However, the requirements of LAC 33:V.3859 through 3871 do not apply to Cytec because is not currently classified as a transporter of universal waste.

§3861. Prohibitions

A universal waste transporter is:

1. prohibited from disposing of universal waste; and
2. prohibited from diluting or treating universal waste, except by responding to releases as provided in LAC 33:V.3867.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:577 (May 1997).

§3863. Waste Management

- A. A universal waste transporter must comply with all applicable U.S. Department of Transportation Regulations in 49 CFR parts 171 - 180 for transport of any universal waste that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the U.S. Department of Transportation Regulations, a material is considered a hazardous waste if it is subject to the hazardous waste manifest requirements specified

in LAC 33:V.Chapter 11. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste under the U.S. Department of Transportation Regulations.

- B. Some universal waste materials are regulated by the U.S. Department of Transportation as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste shipments do not require a manifest under LAC 33:V.Chapter 11, they may not be described by the U.S. Department of Transportation proper shipping name "hazardous waste, (I) or (s), n.o.s.," nor may the hazardous material's proper shipping name be modified by adding the word "waste."

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:577 (May 1997).

§3865. Storage Time Limits

- A. A universal waste transporter may only store the universal waste at a universal waste transfer facility for 10 days or less.
- B. If a universal waste transporter stores universal waste for more than 10 days, the transporter becomes a universal waste handler and must comply with the applicable requirements of Subchapter B or C of this Chapter while storing the universal waste.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:577 (May 1997).

§3867. Response to Releases

- A. A universal waste transporter must immediately contain all releases of universal wastes and other residues from universal wastes.
- B. A universal waste transporter must determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of these regulations. If the waste is determined to be a hazardous waste, the transporter is subject to LAC 33:Chapter 11.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:577 (May 1997).

§3869. Off-site Shipments

- A. A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.

- B. If the universal waste being shipped off-site meets the U.S. Department of Transportation's definition of "hazardous materials" under 49 CFR 171.8, the shipment must be properly described on a shipping paper in accordance with the applicable U.S. Department of Transportation Regulations under 49 CFR part 172.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:578 (May 1997).

§3871. Exports

A universal waste transporter transporting a shipment of universal waste to a foreign destination other than to those OECD countries specified in LAC 33:V.1113.1.1.a (in which case the transporter is subject to the requirements of LAC 33:V.Chapter 11.Subchapter B) may not accept a shipment if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent. In addition the transporter must ensure that:

1. a copy of the EPA Acknowledgment of Consent accompanies the shipment; and
2. the shipment is delivered to the facility designated by the person initiating the shipment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:578 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:685 (April 1998).

Subchapter E. Standards for Destination Facilities

§3873. Applicability

- A. The owner or operator of a destination facility (as defined in LAC 33:V.3813) is subject to all applicable requirements of LAC 33:V.Chapters 3, 5, 9, 15, 17, 19, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 37, 41, and 43, and the notification requirement under LAC 33:V.105.A.
- B. The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled must comply with LAC 33:V.4115.B.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:578 (May 1997).

Response: Cytec acknowledges the regulations cited in LAC 33:V.Chapter 38 Subchapter E. However, the requirements of LAC 33:V.3873 through 3877 do not apply to Cytec because is not currently classified as a destination facility for universal waste.

§3875. Off-site Shipments

- A. The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility, or a foreign destination.
- B. The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he must contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility must:
 - 1. send the shipment back to the original shipper; or
 - 2. if agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.
- C. If the owner or operator of a destination facility receives a shipment containing hazardous waste that was shipped as a universal waste, the owner or operator of the destination facility must immediately notify the administrative authority of the illegal shipment, and provide the name, address, and phone number of the shipper. The administrative authority will provide instructions for managing the hazardous waste.
- D. If the owner or operator of a destination facility receives a shipment of non-hazardous, non-universal waste, the owner or operator may manage the waste in any way that is in compliance with applicable federal or state Solid Waste Regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:578 (May 1997).

§3877. Tracking Universal Waste Shipments

- A. The owner or operator of a destination facility must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:
 - 1. the name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;
 - 2. the quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats, lamps, antifreeze); and
 - 3. the date of receipt of the shipment of universal waste.

- B. The owner or operator of a destination facility must retain the records described in Subsection A of this Section for at least three years from the date of receipt of a shipment of universal waste.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:578 (May 1997) amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1762 (September 1998).

Subchapter F. Import Requirements

§3879. Imports

Persons managing universal waste that is imported from a foreign country into the United States are subject to the applicable requirements of this Chapter, immediately after the waste enters the United States, as indicated in Subsections A-C of this Section.

- A. A universal waste transporter is subject to the universal waste transporter requirements of Subchapter D of this Chapter.
- B. A universal waste handler is subject to the small or large quantity handler of universal waste requirements of Subchapter B or C of this Chapter, as applicable.
- C. An owner or operator of a destination facility is subject to the destination facility requirements of Subchapter E of this Chapter.
- D. Persons managing universal waste that is imported from an OECD country as specified in LAC 33:V.1113.I.1.a are subject to Subsections A-C of this Section, in addition to the requirements of LAC 33:V.Chapter 11.Subchapter B.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:578 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:685 (April 1998).

Response: Cytec acknowledges the regulations cited in LAC 33:V.Chapter 38 Subchapter F. However, the requirements of LAC 33:V.3879 do not apply to Cytec because Cytec does not import universal wastes.

Subchapter G. Petitions to Include Other Wastes Under this Chapter

§3881. General

- A. Any person seeking to add a hazardous waste or a category of hazardous waste to this Chapter may petition for a regulatory amendment under this Subpart and LAC 33:I.Chapter 9.

- B. To be successful, the petitioner must demonstrate to the satisfaction of the administrative authority that regulation under the universal waste regulations in this Chapter:
1. is appropriate for the waste or category of waste;
 2. will improve management practices for the waste or category of waste; and
 3. will improve implementation of the hazardous waste program.
- C. The petition must include the information required by LAC 33:I.Chapter 9. The petition should also address as many of the factors listed in LAC 33:V.3883 as are appropriate for the waste or waste category addressed in the petition.
- D. The administrative authority will evaluate and grant or deny petitions using the factors listed in LAC 33:V.3883. The decision will be based on the weight of evidence showing that regulation under this Chapter is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:320 (February 1998).

Response: Cytec acknowledges the above cited regulations.

§3883. Factors for Petitions to Include Other Wastes Under this Chapter

Factors for petitions to include other waste under this Chapter include:

1. the waste or category of waste, as generated by a wide variety of generators, is listed in LAC 33:V.4901 or (if not listed) a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in LAC 33:V.4903. When a characteristic waste is added to the universal waste regulations of this Chapter by using a generic name to identify the waste category (e.g., batteries), the definition of universal waste in LAC 33:V.3813 will be amended to include only the hazardous waste portion of the waste category (e.g., hazardous waste batteries). Thus, only the portion of the waste stream that does exhibit one or more characteristics (i.e., is hazardous waste) is subject to the universal waste regulations of this Chapter;
2. the waste or category of waste is not exclusive to a specific industry or group of industries and is commonly generated by a wide variety of types of establishments including, for example, households, retail and commercial businesses, office complexes, conditionally exempt small quantity generators, small businesses, and government organizations, as well as large industrial facilities;
3. the waste or category of waste is generated by a large number of generators (e.g., more than 1,000 nationally) and is frequently generated in relatively small quantities by each generator;

4. systems to be used for collecting the waste or category of waste (including packaging, marking, and labeling practices) would ensure close stewardship of the waste;
5. the risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner (e.g., waste management requirements appropriate to be added to LAC 33:V.3821, 3843, and 3863 and/or applicable Department of Transportation requirements) would be protective of human health and the environment during accumulation and transport;
6. regulation of the waste or category of waste under this Chapter will increase the likelihood that the waste will be diverted from nonhazardous waste management systems (e.g., the municipal waste stream, nonhazardous industrial or commercial waste stream, municipal sewer, or stormwater systems) to recycling, treatment, or disposal in compliance with subtitle C of RCRA;
7. regulation of the waste or category of waste under this Chapter will improve implementation of and compliance with the hazardous waste regulatory program; and/or
8. such other factors as may be appropriate.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:320 (February 1998).

Response: Cytec acknowledges the above cited regulations.

Chapter 39 Small Quantity Generators

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 39. Small Quantity Generators

§3901. Applicability

Small quantity generators are subject to all the requirements of this Chapter and Chapter 11 except for those exclusions listed in this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:237 (April 1987), LR 20:1109 (October 1994).

Response: Cytec acknowledges the regulations cited in LAC 33:V. Chapter 39. However, the requirements of LAC 33:V. Chapter 39 do not apply to Cytec because Cytec is not classified as a small quantity generator.

§3903. Quantitative Limit

A generator is a small quantity generator if he generates less than an average of 100 kilograms of hazardous waste per calendar month except as specified in LAC 33:V.3911. If the quantitative limit set forth in this Section is exceeded, the generator must renotify the administrative authority of his change in status and remain in that category for the next calendar year. At no time shall a small quantity generator generate over 1000 kilograms in a calendar month.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:237 (April 1987), repromulgated LR 18:1256 (November 1992), amended LR 20:1109 (October 1994).

§3907. Recycle

- A. The generator must notify the administrative authority of his on-site reuse/recycle activities in accordance with LAC 33:V.4103.
- B. Hazardous waste that is recycled and that is described in LAC 33:V.4105.B and C.4 is not included in the quantity determinations referenced in this Chapter. Hazardous waste that is subject to the requirements of LAC 33:V.4113, 4115, 4139, and 4143 inclusive is included in the quantity determination of LAC 33:V.Chapters 1, 31, 39, 41, and 49 and is subject to the requirements of LAC 33:V.Subpart 1.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:1139 (December 1985), LR 20:1000 (September 1994), LR 20:1109 (October 1994).

§3911. Acutely Hazardous Wastes

If a generator generates acutely hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acutely hazardous waste are subject to full regulation (LAC 33:V.Subpart 1):

- A. a total of one kilogram of acutely hazardous wastes listed in LAC 33:V.4901.B, C, or E;
- B. a total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acutely hazardous wastes listed in LAC 33:V.4901.B, C, or E.

(Comment: "full regulation" means those regulations applicable to generators of greater than 100 kilograms of non-acutely hazardous waste in a calendar month.)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:220 (March 1990), LR 20:1109 (October 1994).

§3913. Accumulation Time

A small quantity generator may accumulate hazardous waste on-site. At no time is a small quantity generator allowed to accumulate more than a total of 1000 kilograms of his hazardous waste on-site. At no time is a small quantity generator allowed to accumulate his acutely hazardous wastes in quantities greater than set forth in LAC 33:V.3911. At no time is the small quantity generator allowed to store the material on-site longer than 365 days.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:237 (April 1987), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 20:1109 (October 1994).

§3915. Requirements

The small quantity generator must:

- A. comply with the manifest requirements in LAC 33:V.1107;
- B. ensure delivery to an off-site storage, treatment or disposal facility, which, if located in the United States, is:
 - 1. permitted under these regulations;

2. in interim status under these regulations;
 3. authorized to manage hazardous waste by a state with a hazardous waste management program approved by the U.S. EPA; or
 4. a facility which:
 - a. legitimately uses or re-uses, or legitimately recycles or reclaims, its waste; or
 - b. treats its waste prior to legitimate use or re-use or legitimate recycling or reclamation.
 5. for universal waste managed under LAC 33:V.Chapter 38, a universal waste handler or destination facility subject to the requirements of LAC 33:V.Chapter 38.
- C. all of the following will be required:
1. the date on which each accumulation period began shall be clearly marked and visible for inspection, as specified in LAC 33:V.1109.E.1.e;
 2. while hazardous waste are being accumulated on-site, each container shall be marked clearly with the words "HAZARDOUS WASTE", as specified in LAC 33:V.1109.E.1;
 3. all hazardous waste being stored on-site in containers or tanks prior to direct shipment to a TSD facility shall be regulated by LAC 33:V.Chapters 19 or 21. A security system shall be provided to insure that site ingress and egress by the public is controlled and that employees are protected from hazards to health resulting from contact with extremely hazardous operations;
 4. the owner or operator shall inspect the facility to detect deterioration, malfunctions, operator errors, and discharges which may cause or lead to the following:
 - a. a release of hazardous waste—a release of hazardous waste constituents into the environment;
 - b. a threat to human health—the owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment;
 5. the owner or operator shall be required to submit an annual report for all hazardous waste shipped off-site. The annual report is due by March 1 of each calendar year covering the period of January 1 to December 31 of the previous year. The report will include the generator ID, the type of waste, the amount of waste, and the disposition of the waste;

6. a training program shall be developed and documented for all personnel whose duties may involve hazardous waste management or emergency response. This training must be a program of classroom instruction or on the job training and must be directed by a person trained in hazardous waste management procedures. Records of this training must be kept on-site. At a minimum, this program must:
 - a. teach facility personnel hazardous waste management procedures relevant to the positions in which they are employed;
 - b. ensure that personnel are able to respond effectively to emergencies by familiarizing them with procedures and equipment; and
 - c. be reviewed on an annual basis;
7. a small quantity generator is excluded from the specific contingency plan requirements under LAC 33:V.1117. However, the small quantity generator must have written emergency procedures which, at a minimum, must include:
 - a. emergency phone numbers; and
 - b. spill cleanup procedures.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:237 (April 1987), LR 16:220 (March 1990), repromulgated LR 18:1256 (November 1992), amended LR 20:1000 (September 1994), LR 20:1109 (October 1994), LR 23:579 (May 1997), LR 24:1497 (August 1998).

Chapter 40 Used Oil

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality Hazardous Waste

Chapter 40. Used Oil

§4001. Definitions

Terms that are defined in LAC 33:V.109 have the same meanings when used in this Chapter.

Aboveground Tank—a tank used to store or process used oil that is not an underground tank as defined in LAC 33:V.109.

Container—any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Do-it-yourselfer (DIY) Used Oil Collection Center—any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

Existing Tank—a tank that is used for the storage or processing of used oil and that is in operation or for which installation commenced on or prior to the effective date of the authorized used oil program. Installation will be considered to have commenced if the owner or operator has obtained all approvals or permits necessary to begin installation of the tank and if either a continuous on-site installation program has begun or the owner or operator has entered into contractual obligations which cannot be canceled or modified without substantial loss for installation of the tank to be completed within a reasonable time.

Household Do-it-yourselfer Used Oil—oil that is derived from households, such as used oil generated by individuals through the maintenance of their personal vehicles.

Household Do-it-yourselfer Used Oil Generator—an individual who generates household do-it-yourselfer used oil.

New Tank—a tank that will be used to store or process used oil and for which installation commenced after the effective date of the authorized used oil program.

Petroleum Refining Facility—an establishment primarily engaged in producing gasoline, kerosine, distillate fuel oils, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking, or other processes (i.e., facilities classified as SIC 2911).

Processing—chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived product. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation, and re-refining.

Re-refining Distillation Bottoms—the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

Tank—any stationary device designed to contain an accumulation of used oil which is constructed primarily of non-earthen materials, (e.g., wood, concrete, steel, plastic) which provides structural support.

Used Oil—any oil that has been refined from crude oil or any synthetic oil that has been used and, as a result of such use, is contaminated by physical or chemical impurities.

Used Oil Aggregation Point—any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or

operator of the aggregation point from which used oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

Used Oil Burner—a facility where used oil not meeting the specification requirements in LAC 33:V.4005 is burned for energy recovery in devices identified in LAC 33:V.4063.

Used Oil Collection Center—any site or facility that is registered, licensed, permitted, and/or recognized to manage used oil and accepts/aggregates and stores used oil collected from used oil generators regulated under LAC 33:V.Chapter 40.Subchapter B which bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of LAC 33:V.4017. Used oil collection centers may also accept used oil from household do-it-yourselfers.

Used Oil Fuel Marketer—any person who conducts either of the following activities:

1. directs a shipment of off-specification used oil from their facility to a used oil burner; or
2. first claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in LAC 33:V.4005.

Used Oil Generator—any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

Used Oil Processor/Re-refiner—a facility that processes used oil.

Used Oil Transfer Facility—any transportation-related facility, including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours and not longer than 35 days during the normal course of transportation or prior to an activity performed in accordance with LAC 33:V.4009.B.2. Transfer facilities that store used oil for more than 35 days are subject to regulation under Subchapter E of this Chapter.

Used Oil Transporter—any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil-derived products or used oil fuel.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:836 (September 1996).

Response: Cytotec acknowledges the above citation.

Subchapter A. Materials Regulated as Used Oil

§4003. Applicability

This Section identifies those materials which are subject to regulation as used oil under this Chapter. This Section also identifies some materials that are not subject to regulation as used

oil under this Chapter and indicates whether these materials may be subject to regulation as hazardous waste under this Subpart.

- A. **Used Oil.** Used oil is to be recycled unless a used oil handler disposes of it or sends it for disposal. Except as provided in LAC 33:V.4005, the regulations of LAC 33:V.Chapter 40 apply to used oil and to materials identified in LAC 33:V.4003 as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristics of hazardous waste identified in LAC 33:V.4903.
- B. **Mixtures of Used Oil and Hazardous Waste**
 - 1. **Listed Hazardous Waste**
 - a. Mixtures of used oil and hazardous waste that is listed in LAC 33:V.4901 are subject to regulation as hazardous waste under LAC 33:V.Subpart 1, rather than as used oil under LAC 33:V.Chapter 40.
 - b. **Rebuttable Presumption for Used Oil.** Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in LAC 33:V.4901. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from EPA Publication SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in LAC 33:V.3105.Table 1). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, (202) 512-1800 (document number 955-001-00000-1).
 - i. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins if they are processed through a tolling arrangement as described in LAC 33:V.4017.C to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner or disposed.
 - ii. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units in which the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.
 - 2. **Characteristic Hazardous Waste.** Mixtures of used oil and hazardous waste that solely exhibits one or more of the hazardous waste characteristic identified in LAC 33:V.4903 and mixtures of used oil and hazardous waste that is listed in LAC 33:V.4901 solely because it exhibits one or more of the characteristics of hazardous waste identified in LAC 33:V.4903 are subject to:
 - a. regulation as hazardous waste under LAC 33:V.Subpart 1 rather than as used oil under LAC 33:V.Chapter 40 if the resultant mixture exhibits any

- characteristics of hazardous waste identified in LAC 33:V.4903, except as provided in LAC 33:V.4003.B.2.c;
- b. regulation as used oil under LAC 33:V.Chapter 40 if the resultant mixture does not exhibit any characteristics of hazardous waste identified under LAC 33:V.4903, except as specified in LAC 33:V.4003.B.2.c; or
 - c. regulation as used oil under this Chapter if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignitable-only mineral spirits), provided that the resulting mixture does not exhibit the characteristic of ignitability under LAC 33:V.4903.

C. Materials Containing or Otherwise Contaminated with Used Oil

- 1. Except as provided in LAC 33:V.4003.C.2, materials containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:
 - a. are not used oil and thus not subject to LAC 33:V.Chapter 40; and
 - b. are subject to the hazardous waste regulations of LAC 33:V.Subpart 1, if applicable.
- 2. Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under LAC 33:V.Chapter 40.
- 3. Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under LAC 33:V.Chapter 40.

D. Mixtures of Used Oil with Products

- 1. Except as provided in LAC 33:V.4003.D.2, mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under LAC 33:V.Chapter 40.
- 2. Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to LAC 33:V.Chapter 40 once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of LAC 33:V.Chapter 40.Subchapter B.

E. Materials Derived from Used Oil

- 1. Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (e.g., re-refined lubricants) are:
 - a. not used oil and, thus, are not subject to LAC 33:V.Chapter 40; and
 - b. not solid wastes and, thus, are not subject to the hazardous waste

regulations of LAC 33:V.Subpart 1 as provided in LAC 33:V.109.Hazardous Waste.4.b.i.

2. Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under LAC 33:V.Chapter 40.
 3. Except as provided in LAC 33:V.4003.E.4, materials derived from used oil that are disposed of or used in a manner constituting disposal are:
 - a. not used oil and, thus, are not subject to LAC 33:V.Chapter 40; and
 - b. solid wastes and, thus, are subject to the hazardous waste regulations of LAC 33:V.Subpart 1 if the materials are listed or identified as hazardous waste.
 4. Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to LAC 33:V.Chapter 40.
- F. Wastewater. Wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act and LAC 33:IX (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with de minimis quantities of used oil is not subject to the requirements of this Chapter. For purposes of LAC 33:V.4003.F, "de minimis" quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases or the used oil is recovered from wastewaters.
- G. Used Oil Introduced into Crude Oil Pipelines or a Petroleum Refining Facility
1. Used oil mixed with crude oil or natural gas liquids (e.g., in a production separator or crude oil stock tank) for insertion into a crude oil pipeline is exempt from the requirements of LAC 33:V.Chapter 40. The used oil is subject to the requirements of LAC 33:V.Chapter 40 prior to the mixing of used oil with crude oil or natural gas liquids.
 2. Mixtures of used oil and crude oil or natural gas liquids containing less than one percent used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from the requirements of LAC 33:V.Chapter 40.
 3. Used oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from the requirements of LAC 33:V.Chapter 40 provided that the used oil constitutes less than one percent of the crude oil feed to any petroleum refining facility

process unit at any given time. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of LAC 33:V.Chapter 40.

4. Except as provided in LAC 33:V.4003.G.5, used oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from the requirements of LAC 33:V.Chapter 40 only if the used oil meets the specification of LAC 33:V.4005. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of LAC 33:V.Chapter 40.
 5. Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from the requirements of LAC 33:V.Chapter 40. This exemption does not extend to used oil which is intentionally introduced into a hydrocarbon recovery system (e.g., by pouring collected used oil into the wastewater treatment system).
 6. Tank bottoms from stock tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from the requirements of LAC 33:V.Chapter 40.
- H. **Used Oil on Vessels.** Used oil produced on vessels from normal shipboard operations is not subject to this Chapter until it is transported ashore.
- I. **Used Oil Containing PCBs.** In addition to the requirements of LAC 33:V.Chapter 40, marketers and burners of used oil who market used oil containing any quantifiable level of PCBs are subject to the requirements of 40 CFR 761.20(e).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:828 (September 1996), LR 22:836 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1108 (June 1998).

Response: Cytoc acknowledges the above citation. Cytoc manages used oil onsite, but not in such a manner that would require being included in this permit application.

§4005. Used Oil Specifications

Used oil burned for energy recovery and any fuel produced from used oil by processing, blending, or other treatment is subject to regulation under this Chapter unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specifications shown in LAC 33:V.4005.Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any specifications and the person making that showing complies with LAC 33:V.4081, 4083, and 4085.B, the used oil is no longer subject to this Chapter.

Table 1-Used Oil Not Exceeding Any Specification Level is Not Subject to this Chapter When Burned for Energy Recovery 1

Constituent/property level Allowable

Arsenic 5 ppm maximum

Cadmium 2 ppm maximum

Chromium 10 ppm maximum

Lead 100 ppm maximum

Flash point 100EF minimum

Total halogens 4,000 ppm maximum 2

ENDNOTE: The specification does not apply to mixtures of used oil and hazardous 1 waste that continue to be regulated as hazardous waste (see LAC 33:V.4003.B).

ENDNOTE: Used oil containing more than 1,000 ppm total halogens is presumed 2 to be a hazardous waste under the rebuttable presumption provided under LAC 33:V.4003.B.1. Such used oil is subject to LAC 33:V.Chapter 30 rather than LAC 33:V.Chapter 40 when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

Note: Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytac acknowledges the above citation.

§4007. Prohibitions

- A. Surface Impoundment Prohibition.** Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27-29, 31-33, 35, 37, and 43.
- B. Use as a Dust Suppressant.** The use of used oil as a dust suppressant is prohibited.
- C. Burning in Particular Units.** Off-specification used oil fuel may be burned for energy recovery in only the following devices:
 - 1. industrial furnaces identified in LAC 33:V.109;**
 - 2. boilers as defined in LAC 33:V.109 that are identified as follows:**
 - a. industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;**
 - b. utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or**
 - c. used oil-fired space heaters provided that the burner meets the provisions of LAC 33:V.4015.**

3. hazardous waste incinerators subject to regulation under LAC 33:V.Chapter 31 and Chapter 43.Subchapter N.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

Subchapter B. Standards for Used Oil Generators

§4009. Applicability

- A. General. Except as provided in LAC 33:V.4009.A.1)4, this Subchapter applies to all used oil generators.
 1. Household Do-it-yourselfer Used Oil Generators. Household do-it-yourselfer used oil generators are not subject to regulation under LAC 33:V.Chapter 40.
 2. Vessels. Vessels at sea or at port are not subject to LAC 33:V.Chapter 40.Subchapter B. For purposes of this Subchapter, used oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported ashore. The owner or operator of the vessel and the person(s) removing or accepting used oil from the vessel are co-generators of the used oil and are both responsible for managing the waste in compliance with this Subchapter once the used oil is transported ashore. The co-generators may decide among them which party will fulfill the requirements of this Subchapter.
 3. Diesel Fuel. Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator's own vehicles are not subject to LAC 33:V.Chapter 40 once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil fuel is subject to the requirements of this Subchapter.
 3. Farmers. Farmers who generate an average of 25 gallons per month or less of used oil from vehicles or machinery used on the farm in a calendar year are not subject to the requirements of LAC 33:V.Chapter 40.
- B. Other Applicable Provisions. Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of LAC 33:V.Chapter 40 as indicated in LAC 33:V.4009.B.1)5:
 1. generators who transport used oil, except under the self-transport provisions of LAC 33:V.4017.A and B, must also comply with LAC 33:V.Chapter 40.Subchapter D;
 2. generators who process or re-refine used oil must also comply with LAC 33:V.Chapter 40.Subchapter E, except as provided in LAC 33:V.4009.B.2.b.

Generators who perform the following activities are not processors provided that the used oil is generated on-site and is not being sent off-site to a burner of on- or off-specification used oil fuel:

- a. filtering, cleaning, or otherwise reconditioning used oil before returning it for reuse by the generator;
 - b. separating used oil from wastewater generated on-site to make the wastewater acceptable for discharge or reuse pursuant to section 402 or section 307(b) of the Clean Water Act, LAC 33:IX, or other applicable federal or state regulations governing the management or discharge of wastewater;
 - c. using oil mist collectors to remove small droplets of used oil from in-plant air to make plant air suitable for continued recirculation;
 - d. draining or otherwise removing used oil from materials containing or otherwise contaminated with used oil in order to remove excessive oil to the extent possible in accordance with LAC 33:V.4003.C; or
 - e. filtering, separating, or otherwise reconditioning used oil before burning it in a space heater pursuant to LAC 33:V.4015;
3. generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of LAC 33:V.4015, must also comply with LAC 33:V.Chapter 40.Subchapter F;
 4. generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in LAC 33:V.4005 must also comply with LAC 33:V.Chapter 40.Subchapter G; and
 5. generators who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with LAC 33:V.Chapter 40.Subchapter H.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:836 (September 1996).

Response: Cytec acknowledges the above citation.

§4011. Hazardous Waste Mixing

- A. Mixtures of used oil and hazardous waste must be managed in accordance with LAC 33:V.4003.B.
- B. The rebuttable presumption for used oil of LAC 33:V.4003.B.1.b applies to used oil managed by generators. Under the rebuttable presumption for used oil of LAC 33:V.4003.B.1.b, used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and, thus, must be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does

not apply to certain metalworking oils/fluids and certain used oils removed from refrigeration units.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4013. Used Oil Storage

Used oil generators are subject to all applicable Spill Prevention, Control, and Countermeasures (40 CFR part 112) in addition to the requirements of this Subchapter. Used oil generators are also subject to the Underground Storage Tanks (LAC 33:XI) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subchapter.

- A. **Storage Units.** Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27)29, 31)33, 35, 37, and 43.
- C. **Condition of Units.** Containers and aboveground tanks used to store used oil at generator facilities must:
 - 1. be in good condition (no severe rusting, apparent structural defects or deterioration); and
 - 2. not be leaking (no visible leaks).
- D. **Labels**
 - 1. Containers and aboveground tanks used to store used oil at generator facilities must be labeled or marked clearly with the words "Used Oil."
 - 2. Fill pipes used to transfer used oil into underground storage tanks at generator facilities must be labeled or marked clearly with the words "Used Oil."
- D. **Response to Releases.** Upon detection of a release of used oil to the environment which is not subject to the requirements of LAC 33:XI.715 and which has occurred after the effective date of the authorized used oil program, a generator must perform the following cleanup steps:
 - 1. stop the release;
 - 2. contain the released used oil;
 - 3. clean up and properly manage the released used oil and other materials; and

4. if necessary to prevent future releases, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4015. On-site Burning in Space Heaters

Generators may burn used oil in used oil-fired space heaters provided that:

- A. the heater burns only used oil that the owner or operator generates or used oil received from household do-it-yourself used oil generators;
- B. the heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and
- C. the combustion gases from the heater are vented to the ambient air.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4017. Off-site Shipments

Except as provided in LAC 33:V.4017.A)C, generators must ensure that their used oil is transported only by transporters who have obtained EPA identification numbers.

- A. **Self-transportation of Small Amounts to Approved Collection Centers.** Generators may transport, without an EPA identification number, used oil that is generated at the generator's site and used oil collected from household do-it-yourselfers to a used oil collection center provided that:
 1. the generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;
 2. the generator transports no more than 55 gallons of used oil at any one time; and
 3. the generator transports the used oil to a used oil collection center that is registered, licensed, permitted, or recognized to manage used oil.
- B. **Self-transportation of Small Amounts to Aggregation Points Owned by the Generator.** Generators may transport, without an EPA identification number, used oil that is generated at the generator's site to an aggregation point provided that:

1. the generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;
 2. the generator transports no more than 55 gallons of used oil at any one time; and
 3. the generator transports the used oil to an aggregation point that is owned and/or operated by the same generator.
- C. Tolling Arrangements. Used oil generators may arrange for used oil to be transported by a transporter who does not have an EPA identification number if the used oil is reclaimed under a contractual agreement according to which reclaimed oil is returned by the processor/re-refiner to the generator for use as a lubricant, cutting oil, or coolant. The contract (known as a "tolling arrangement") must indicate:
1. the type of used oil and the frequency of shipments;
 2. that the vehicle used to transport the used oil to the processing/re-refining facility and to deliver recycled used oil back to the generator is owned and operated by the used oil processor/re-refiner; and
 3. that reclaimed oil will be returned to the generator.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytex acknowledges the above citation.

Subchapter C. Standards for Used Oil Collection Centers and Aggregation Points

§4019. Do-it-yourselfer Used Oil Collection Centers

- A. Applicability. This Section applies to owners or operators of all do-it-yourselfer (DIY) used oil collection centers.
- B. DIY Used Oil Collection Center Requirements. Owners or operators of all DIY used oil collection centers must comply with the generator standards in LAC 33:V.Chapter 40.Subchapter B and any applicable requirements set forth in LAC 33:VII.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytex acknowledges the above citation.

§4021. Used Oil Collection Centers

- A. **Applicability.** This Section applies to owners or operators of used oil collection centers. A used oil collection center is any site or facility that accepts/aggregates and stores used oil collected from used oil generators regulated under LAC 33:V.Chapter 40.Subchapter B who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of LAC 33:V.4017.A. Used oil collection centers may also accept used oil from household do-it-yourselfers.
- B. **Used Oil Collection Center Requirements.** Owners or operators of all used oil collection centers must:
1. comply with the generator standards in LAC 33:V.Chapter 40.Subchapter B and any applicable requirements set forth in LAC 33:VII; and
 3. be registered, licensed, permitted, and/or recognized to manage used oil.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytac acknowledges the above citation.

§4023. Used Oil Aggregation Points Owned by the Generator

- A. **Applicability.** This Section applies to owners or operators of all used oil aggregation points. A used oil aggregation point is any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point from which used oil is transported to the aggregation point in shipments of no more than 55 gallons under the provisions of LAC 33:V.4017.B. Used oil aggregation points may also accept used oil from household do-it-yourselfers.
- B. **Used Oil Aggregation Point Requirements.** Owners or operators of all used oil aggregation points must comply with the generator standards in LAC 33:V.Chapter 40.Subchapter B and any applicable requirements set forth in LAC 33:VII.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytac acknowledges the above citation.

Subchapter D. Standards for Used Oil Transporter and Transfer Facilities

§4025. Applicability

- A. **General.** Except as provided in LAC 33:V.4025.A.1)4, this Subchapter applies to all used oil transporters.
1. This Subchapter does not apply to on-site transportation.

2. This Subchapter does not apply to generators who transport shipments of used oil totalling 55 gallons or less from the generator to a used oil collection center as specified in LAC 33:V.4017.A.
 3. This Subchapter does not apply to generators who transport shipments of used oil totalling 55 gallons or less from the generator to a used oil aggregation point owned or operated by the same generator as specified in LAC 33:V.4017.B.
 4. This Subchapter does not apply to transportation of used oil from household do-it-yourselfers to a regulated used oil generator, collection center, aggregation point, processor/re-refiner, or burner subject to the requirements of LAC 33:V.Chapter 40. Except as provided in LAC 33:V.4025.A.1)3, this Subchapter does, however, apply to transportation of collected household do-it-yourselfer used oil from regulated used oil generators, collection centers, aggregation points, or other facilities where household do-it-yourselfer used oil is collected.
- B. Imports and Exports. Transporters who import used oil from abroad or export used oil outside of the United States are subject to the requirements of this Subchapter from the time the used oil enters and until the time it exits the United States.
- C. Trucks Used to Transport Hazardous Waste. Unless trucks previously used to transport hazardous waste are emptied as described in LAC 33:V.109.Empty Container prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and must be managed as hazardous waste unless, under the provisions of LAC 33:V.4003.B, the hazardous waste/used oil mixture is determined not to be hazardous waste.
- C. Other Applicable Provisions. Used oil transporters who conduct the following activities are also subject to other applicable provisions of this Chapter as indicated in LAC 33:V.4025.D.1)5:
1. transporters who generate used oil must also comply with LAC 33:V.Chapter 40.Subchapter B;
 2. transporters who process or re-refine used oil, except as provided in LAC 33:V.4027, must also comply with LAC 33:V.Chapter 40.Subchapter E;
 3. transporters who burn off-specification used oil for energy recovery must also comply with LAC 33:V.Chapter 40.Subchapter F;
 4. transporters who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in LAC 33:V.4005 must also comply with LAC 33:V.Chapter 40.Subchapter G; and
 5. transporters who dispose of used oil must also comply with LAC 33:V.Chapter 40.Subchapter H.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.4025 through 4039 are not applicable to Cytec because Cytec does not engage in the off-site transport of used oil.

§4027. Restrictions on Transporters Who Are Not Also Processors or Re-refiners

- A. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation. However, except as provided in LAC 33:V.4027.B, used oil transporters may not process used oil unless they also comply with the requirements for processors/re-refiners in LAC 33:V.Chapter 40.Subchapter E.
- B. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil-derived products unless they also comply with the processor/re-refiner requirements in LAC 33:V.Chapter 40.Subchapter E.
- C. Transporters of used oil that is removed from oil-bearing electrical transformers and turbines and filtered by the transporter or at a transfer facility prior to being returned to its original use are not subject to the processor/re-refiner requirements in LAC 33:V.Chapter 40.Subchapter E.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4029. Notification

- A. **Identification Numbers.** Used oil transporters who have not previously complied with the notification requirements of LAC 33:V.Chapter 40 must comply with these requirements and obtain an EPA identification number.
- B. **Mechanics of Notification.** A used oil transporter who has not received an EPA Identification number may obtain one by notifying the administrative authority of their used oil activity by submitting a completed Louisiana Notification of Hazardous Waste Activity Form (HW-1).
- C. Upon promulgation of this Chapter, used oil transporters and transfer facilities who have previously notified must renotify the administrative authority of used oil activity.

- D. Used oil transporters and transfer facilities must notify the administrative authority within seven business days if any of the information submitted in the application for the identification number changes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytec acknowledges the above citation.

§4031. Used Oil Transportation

- A. Deliveries. A used oil transporter must deliver all used oil received to:
1. another used oil transporter, provided that the transporter has obtained an EPA Identification number;
 2. a used oil processing/re-refining facility which has obtained an EPA identification number;
 3. an off-specification used oil burner facility which has obtained an EPA identification number; or
 4. an on-specification used oil burner facility.
- B. DOT Requirements. Used oil transporters must comply with all applicable requirements under the U.S. Department of Transportation regulations in 49 CFR parts 171)180. Persons transporting used oil that meets the definition of a hazardous material in 49 CFR 171.8 must comply with all applicable regulations in 49 CFR parts 171)180.
- D. Used Oil Discharges
1. In the event of a discharge of used oil during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area, etc.).
 2. If a discharge of used oil occurs during transportation and an official acting within the scope of official responsibilities determines that immediate removal of the used oil is necessary to protect human health or the environment, that official may authorize the removal of the used oil by transporters who do not have EPA identification numbers.
 3. An air, rail, highway, or water transporter who has discharged used oil must:
 - a. give notice, if required by 49 CFR 171.15, to the National Response Center (800/424-8802 or 202/426-2675); and

- b. report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC 20590.
4. A water transporter who has discharged used oil must give notice as required by 33 CFR 153.203.
5. A transporter must clean up any used oil discharge that occurs during transportation or take such action as may be required or approved by federal, state, or local officials so that the used oil discharge no longer presents a hazard to human health or the environment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytac acknowledges the above citation.

§4033. Rebuttable Presumption for Used Oil

- A. To ensure that used oil is not a hazardous waste under the rebuttable presumption of LAC 33:V.4003.B.1.b, the used oil transporter must determine whether the total halogen content of used oil being transported or stored at a transfer facility is above or below 1,000 ppm.
- B. The transporter must make this determination by:
 1. testing the used oil; or
 3. applying knowledge of the halogen content of the used oil in light of the materials or processes used.
- C. If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste, which is listed in LAC 33:V.4901. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents, which are listed in LAC 33:V.3105.Table 1). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. (202) 512-1800 (document number 955-001-00000-1).
 1. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins if they are processed, through a tolling arrangement, as described in LAC 33:V.4017.C, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner or disposed.

2. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.
- D. Record Retention. Records of analyses conducted or information used to comply with LAC 33:V.4033.A)C must be maintained by the transporter for at least three years.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:828 (September 1996).

Response: Cytec acknowledges the above citation.

§4035. Used Oil Storage at Transfer Facilities

Used oil transporters are subject to all applicable spill prevention, control, and countermeasures (40 CFR Part 112) in addition to the requirements of this Subchapter. Used oil transporters are also subject to the Underground Storage Tanks (LAC 33:XI) standards for used oil stored in underground tanks, whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subchapter. Used oil transfer facility status is contingent upon approval of the administrative authority.

- A. **Applicability.** This Section applies to used oil transfer facilities. Used oil transfer facilities are transportation-related facilities, including loading docks, parking areas, storage areas, and other areas, where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to regulation under LAC 33:V.Chapter 40.Subchapter E.
- B. **Storage Units.** Owners or operators of used oil transfer facilities may not store used in units other than tanks, containers, or units subject to regulation under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27)29, 31)33, 35, 37, and 43.
- C. **Condition of Units.** Containers and aboveground tanks used to store used oil at transfer facilities must:
 1. be in good condition (no severe rusting, apparent structural defects or deterioration); and
 2. not be leaking (no visible leaks).
- D. **Secondary Containment for Containers.** Containers used to store used oil at transfer facilities must be equipped with a secondary containment system.
 1. The secondary containment system must consist of, at a minimum:

- a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dikes, berms, or retaining walls; or
 - c. an equivalent secondary containment system.
 2. The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil which is released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- E. **Secondary Containment for Existing Aboveground Tanks.** Existing aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.
 1. The secondary containment system must consist of, at a minimum:
 - a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or
 - c. an equivalent secondary containment system.
 2. The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil which is released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- F. **Secondary Containment for New Aboveground Tanks.** New aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.
 1. The secondary containment system must consist of, at a minimum:
 - a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
 - c. an equivalent secondary containment system.
 2. The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil which is released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- G. **Labels**
 1. Containers and aboveground tanks used to store used oil at transfer facilities must be labeled or marked clearly with the words "Used Oil."

2. Fill pipes used to transfer used oil into underground storage tanks at transfer facilities must be labeled or marked clearly with the words "Used Oil."
- H. Response to Releases. Upon detection of a release of used oil to the environment which is not subject to the requirements of LAC 33:XI.715 and which occurred after the effective date of the authorized used oil program, the owner/operator of a transfer facility must perform the following cleanup steps:
1. stop the release;
 2. contain the released used oil;
 3. clean up and manage properly the released used oil and other materials; and
 3. if necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytac acknowledges the above citation.

§4037. Tracking

- A. Acceptance. Used oil transporters must keep a record of each used oil shipment accepted for transport. This record shall be in the form of a used oil reuse/recycle manifest obtained from the department. Records for each shipment must include:
1. the name and address of the generator, transporter, or processor/re-refiner who provided the used oil for transport;
 2. the EPA identification number (if applicable) of the generator, transporter, or processor/re-refiner who provided the used oil for transport;
 3. the quantity of used oil accepted;
 4. the date of acceptance; and
 5. except as provided in LAC 33:V.4037.A.5.b, the signature, dated upon receipt of the used oil, of a representative of the generator, transporter, or processor/re-refiner who provided the used oil for transport. Intermediate rail transporters are not required to sign the record of acceptance.
- B. Deliveries. Used oil transporters must keep a record of each shipment of used oil that is delivered to another used oil transporter or to a used oil burner, processor/re-refiner, or

disposal facility. This record shall be in the form of a used oil reuse/recycle manifest obtained from the department. Records of each delivery must include:

1. the name and address of the receiving facility or transporter;
 2. the EPA identification number of the receiving facility or transporter;
 3. the quantity of used oil delivered;
 4. the date of delivery;
 5. except as provided in LAC 33:V.4037.A.5.b, the signature, dated upon receipt of the used oil, of a representative of the receiving facility or transporter. Intermediate rail transporters are not required to sign the record of delivery.
- C. Exports of Used Oil. Used oil transporters must maintain the records described in LAC 33:V.4037.B.1)4 for each shipment of used oil exported to any foreign country.
- D. Record Retention. The records described in LAC 33:V.4037.A.C must be maintained for at least three years.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytec acknowledges the above citation.

§4039. Management of Residues

Transporters who generate residues from the storage or transport of used oil must manage the residues as specified in LAC 33:V.4003.E.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

Subchapter E. Standards for Used Oil Processors and Re-Refiners

§4041. Applicability

- A. The requirements of this Subchapter apply to owners and operators of facilities that process used oil. The requirements of this Subchapter do not apply to:
1. transporters that conduct incidental processing operations that occur during the normal course of transportation as provided in LAC 33:V.4027; or

2. burners that conduct incidental processing operations that occur during the normal course of used oil management prior to burning as provided in LAC 33:V.4063.B.
- B. Other Applicable Provisions. Used oil processors/re-refiners who conduct the following activities are also subject to the requirements of other applicable provisions of this Chapter as indicated in LAC 33:V.4041.B.1-5:
1. processors/re-refiners who generate used oil must also comply with LAC 33:V.Chapter 40.Subchapter B;
 2. processors/re-refiners who transport used oil must also comply with LAC 33:V.Chapter 40.Subchapter D;
 3. except as provided in LAC 33:V.4041.B.3.a and b, processors/re-refiners who burn off-specification used oil for energy recovery must also comply with LAC 33:V.Chapter 40.Subchapter F. Processors/re-refiners burning used oil for energy recovery under the following conditions are not subject to LAC 33:V.Chapter 40.Subchapter F:
 - a. the used oil is burned in an on-site space heater that meets the requirements of LAC 33:V.4015; or
 - b. the used oil is burned for purposes of processing used oil which is considered burning incidentally to used oil processing;
 4. processors/re-refiners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in LAC 33:V.4005 must also comply with LAC 33:V.Chapter 40.Subchapter G; and
 4. processors/re-refiners who dispose of used oil must also comply with LAC 33:V.Chapter 40.Subchapter H.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.4041 through 4059 do not apply to Cytec because Cytec does not process used oil.

§4043. Notification

- A. Identification Numbers. Used oil processors and re-refiners who have not previously complied with the notification requirements of LAC 33:V.Chapter 40 must comply with these requirements and obtain an EPA identification number.

- B. **Mechanics of Notification.** A used oil processor or re-refiner who has not received an EPA identification number may obtain one by notifying the administrative authority of their used oil activity by submitting a completed Louisiana Notification of Hazardous Waste Activity Form (HW-1).
- C. Upon promulgation of this Chapter, used oil processors and re-refiners who have previously notified must renotify the administrative authority of used oil activity.
- D. Used oil processors and re-refiners must notify the administrative authority within seven business days if any of the information submitted in the application for the identification number changes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytac acknowledges the above citation.

§4045. General Facility Standards

- A. **Preparedness and Prevention.** Owners and operators of used oil processing and re-refining facilities must comply with the following requirements:
 - 1. **Maintenance and Operation of Facility.** Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned release of used oil to air, soil, or surface water which could threaten human health or the environment;
 - 2. **Required Equipment.** All facilities must be equipped with the following, unless none of the hazards posed by used oil handled at the facility could require a particular kind of equipment specified in LAC 33:V.4045.A.2.a-d:
 - a. an internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
 - b. a device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or emergency response teams;
 - c. portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
 - d. water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems
 - 3. **Testing and Maintenance of Equipment.** All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination

equipment, where required, must be tested and maintained as necessary to ensure its proper operation in time of emergency;

4. Access to Communications or Alarm System

- a. Whenever used oil is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in LAC 33:V.4045.A.2;
- b. If there is ever just one employee on the premises while the facility is operating, the employee must have immediate access to a communication device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required in LAC 33:V.4045.A.2;

5. Required Aisle Space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes; and

6. Arrangements with Local Authorities

- a. The owner or operator must attempt to make the following arrangements, as appropriate for the type of used oil handled at the facility and the potential need for the services of these organizations: i. to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of used oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes; ii. to designate primary emergency authority to a specific police and a specific fire department for those instances when multiple departments might respond to an emergency and to make further agreements with any other departments to provide support to the primary emergency authority; iii. to make agreements with emergency response teams, emergency response contractors, and equipment suppliers; and iv. to familiarize local hospitals with the properties of used oil handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility;
- b. Where local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

B. Contingency Plan and Emergency Procedures. Owners and operators of used oil processing and re-refining facilities must comply with the following requirements:

1. Purpose and Implementation of Contingency Plan

- a. Each owner or operator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned release of used oil to air, soil, or surface water;
- b. The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of used oil which could threaten human health or the environment;

2. Content of Contingency Plan

- a. The contingency plan must describe the actions facility personnel must take to comply with LAC 33:V.4045.B.1 and 6 in response to fires, explosions, or any unplanned release of used oil to air, soil, or surface water at the facility;
- b. If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR chapter 1 part 112, or 40 CFR chapter V part 1510, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate used oil management provisions that are sufficient to comply with the requirements of this Chapter;
- c. The plan must describe arrangements agreed to by local police departments, fire departments, emergency response teams, emergency response contractors, equipment suppliers, and hospitals to coordinate emergency services in accordance with LAC 33:V.4045.A.6;
- d. The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as the emergency coordinator (see LAC 33:V.4045.B.5) and this list must be kept up-to-date. Where more than one person is listed, one must be named as primary emergency coordinator and the others must be listed in the order in which they will assume responsibility as alternates;
- e. The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, internal and external communications and alarm systems, and decontamination equipment), where this equipment may be required. This list must be kept up-to-date. In addition, the plan must include the location and a physical description of each item on the list and a brief outline of its capabilities;
- f. The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of used oil or fires);

3. Copies of Contingency Plan. A copy of the contingency plan and all revisions to the plan must be:

- a. maintained at the facility; and

- b. submitted to all local police departments, fire departments, emergency response teams, and hospitals that may be called upon to provide emergency services;
4. Amendment of Contingency Plan. The contingency plan must be reviewed and immediately amended, if necessary, whenever:
 - a. applicable regulations are revised;
 - b. the plan fails in an emergency;
 - c. the facility changes its design, construction, operation, maintenance, or other circumstances in such a way that materially increases the potential for fires, explosions, or releases of used oil or changes the response necessary in an emergency;
 - d. the list of emergency coordinators changes; or
 - e. the list of emergency equipment changes;
5. Emergency Coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristic of used oil handled, the location of all records within the facility, and facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.
Note: The emergency coordinator's responsibilities are more fully spelled out in LAC 33:V.4045.B.6. Applicable responsibilities for the emergency coordinator vary, depending on factors such as the type and variety of used oil handled by the facility and the type and complexity of the facility; and
6. Emergency Procedures
 - a. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the designee when the emergency coordinator is on call) must immediately:
 - i. activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
 - ii. notify appropriate local agencies that have designated response roles, if their help is needed.
 - b. Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and the real extent of any released materials. He may do this by observation, review of facility records of manifests and, if necessary, chemical analyses.
 - c. Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or

asphyxiating gases that are generated or the effects of any hazardous surface water run-offs from water containing chemical agents used to control fire and heat-induced explosions).

- d. If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, then he must report his findings as follows:
 - i. if his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and
 - ii. he must immediately notify the state official designated as the on-scene coordinator for the geographical area. The report must include:
 - (a). name and telephone number of reporter;
 - (b). name and address of facility;
 - (c). time and type of incident (e.g., release, fire);
 - (d). name and quantity of material(s) involved, to the extent known;
 - (e). the extent of injuries, if any; and
 - (f). the possible hazards to human health or the environment outside the facility.
- e. During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other used oil or hazardous waste at the facility. These measures must include, where applicable, stopping processes and operation, collecting and containing released used oil, and removing or isolating containers.
- f. If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.
- g. Immediately after an emergency, the emergency coordinator must provide for recycling, storing, or disposing of recovered used oil, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.
- h. The emergency coordinator must ensure that, in the affected area(s) of the facility:
 - i. no waste or used oil that may be incompatible with the released material is recycled, treated, stored, or disposed of until cleanup procedures are completed;
 - ii. all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed; and
 - iii. the owner or operator must notify the administrative authority and appropriate local authorities that the facility is in compliance with LAC 33:V.4045.B.h.i and ii before operations are resumed in the affected area(s) of the facility.

- i. The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report about the incident to the administrative authority. The report must include:
 - i. name, address, and telephone number of the owner or operator;
 - ii. name, address, and telephone number of the facility;
 - iii. date, time, and type of incident (e.g., fire, explosion);
 - iv. name and quantity of material(s) involved;
 - v. the extent of injuries, if any;
 - vi. an assessment of actual or potential hazards to human health or the environment, where this is applicable; and
 - vii. estimated quantity and disposition of recovered material that resulted from the incident.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytac acknowledges the above citation.

§4047. Rebuttable Presumption for Used Oil

- A. To ensure that used oil managed at a processing/re-refining facility is not hazardous waste under the rebuttable presumption of LAC 33:V.4003.B.1.b, the owner or operator of a used oil processing/re-refining facility must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.
- B. The owner or operator must make this determination by:
 1. testing the used oil; or
 2. applying knowledge of the halogen content of the used oil in light of the materials or processes used.
- C. If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste, which is listed in LAC 33:V.4901. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents, which are listed in LAC 33:V.3105.Table 1). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. (202) 512-1800 (document number 955-001-00000-1).
 1. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner or disposed.

2. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:828 (September 1996).

Response: Cytac acknowledges the above citation.

§4049. Used Oil Management

Used oil processors/re-refiners are subject to all applicable Spill Prevention, Control, and Countermeasures (40 CFR part 112) in addition to the requirements of this Subchapter. Used oil processors/re-refiners are also subject to the Underground Storage Tanks (LAC 33:XI) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subchapter.

- A. **Management Units.** Used oil processors/re-refiners may not store used oil in units other than tanks, containers, or units subject to regulation under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27)29, 31)33, 35, 37, and 43.
- B. **Condition of Units.** Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must:
 1. be in good condition (no severe rusting, apparent structural defects or deterioration); and
 2. not be leaking (no visible leaks).
- C. **Secondary Containment for Containers.** Containers used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.
 1. The secondary containment system must consist of, at a minimum:
 - a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
 - c. an equivalent secondary containment system.
 2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

- D. Secondary Containment for Existing Aboveground Tanks.** Existing aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.
1. The secondary containment system must consist of, at a minimum:
 - a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or
 - c. an equivalent secondary containment system.
 2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- E. Secondary Containment for New Aboveground Tanks.** New aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.
1. The secondary containment system must consist of, at a minimum:
 - a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
 - c. an equivalent secondary containment system.
 3. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the

containment system from migrating out of the system to the soil, groundwater, or surface water.

F. Labels

1. Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil."
2. Fill pipes used to transfer used oil into underground storage tanks at processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil."

G. Response to Releases. Upon detection of a release of used oil to the environment not subject to the requirements of LAC 33:XI.715 which has occurred after the effective date of the authorized used oil program, an owner/operator must perform the following cleanup steps:

1. stop the release;
2. contain the released used oil;
3. clean up and manage properly the released used oil and other materials; and
4. if necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

H. Closure

1. **Aboveground Tanks.** Owners and operators who store or process used oil in aboveground tanks must comply with the following requirements:
 - a. at closure of a tank system, the owner or operator must remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under LAC 33:V.Subpart 1; and
 - b. if the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in LAC 33:V.4049.H.1.a, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to hazardous waste landfills (LAC 33:V.4501).
3. **Containers.** Owners and operators who store used oil in containers must comply with the following requirements:
 - a. at closure, containers holding used oils or residues of used oil must be removed from the site; and

- b. the owner or operator must remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil and manage them as hazardous waste, unless the materials are not hazardous waste under LAC 33:V.Chapters 1, 31, 41, and 49.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytex acknowledges the above citation.

§4051. Analysis Plan

Owners or operators of used oil processing and re-refining facilities must develop and follow a written analysis plan describing the procedures that will be used to comply with the analysis requirements of LAC 33:V.4047 and, if applicable, LAC 33:V.4081. The owner or operator must keep the plan at the facility.

- A. **Rebuttable Presumption for Used Oil in LAC 33:V.4047.** At minimum, the plan must specify the following:
 1. whether sample analyses or knowledge of the halogen content of the used oil will be used to make this determination;
 2. if sample analyses are used to make this determination:
 - a. the sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:
 - i. one of the sampling methods in LAC 33:V.4901.Appendix D; or
 - ii. a method shown to be equivalent under LAC 33:V.105.H and I;
 - b. the frequency of sampling to be performed and whether the analysis will be performed on-site or off-site; and
 - c. the methods used to analyze used oil for the parameters specified in LAC 33:V.4047; and
 3. the type of information that will be used to determine the halogen content of the used oil.
- B. **On-specification Used Oil Fuel in LAC 33:V.4081.** At a minimum, the plan must specify the following if LAC 33:V.4081 is applicable:
 1. whether sample analyses or other information will be used to make this determination;
 2. if sample analyses are used to make this determination:
 - a. the sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

- i. one of the sampling methods in LAC 33:V.4901.Appendix D; or
 - ii. a method shown to be equivalent under LAC 33:V.105. H and I;
 - b. whether used oil will be sampled and analyzed prior to or after any processing/re-refining;
 - c. the frequency of sampling to be performed and whether the analysis will be performed on-site or off-site; and
 - d. the methods used to analyze used oil for the parameters specified in LAC 33:V.4081; and
3. the type of information that will be used to make the on-specification used oil fuel determination.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytotec acknowledges the above citation.

§4053. Tracking

- A. **Acceptance.** Used oil processors/re-refiners must keep a record of each used oil shipment accepted for processing/re-refining. These records shall take the form of a used oil reuse/recycle manifest obtained from the department. Records for each shipment must include the following information:
1. the name and address of the transporter who delivered the used oil to the processor/re-refiner;
 2. the name and address of the generator or processor/re-refiner from whom the used oil was sent for processing/re-refining;
 3. the EPA identification number of the transporter who delivered the used oil to the processor/re-refiner;
 4. the EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent for processing/re-refining;
 5. the quantity of used oil accepted; and
 6. the date of acceptance.
- B. **Delivery.** Used oil processor/re-refiners must keep a record of each shipment of used oil that is shipped to a used oil burner, processor/re-refiner, or disposal facility. These records shall take the form of a used oil reuse/recycle manifest obtained from the department. Records for each shipment must include the following information:
1. the name and address of the transporter who delivers the used oil to the burner, processor/re-refiner, or disposal facility;

2. the name and address of the burner, processor/re-refiner, or disposal facility who will receive the used oil;
 3. the EPA identification number of the transporter who delivers the used oil to the burner, processor/re-refiner, or disposal facility;
 4. the EPA identification number of the burner, processor/re-refiner, or disposal facility who will receive the used oil;
 5. the quantity of used oil shipped; and
 6. the date of shipment.
- B. Record Retention. The records described in LAC 33:V.4053.A and B must be maintained for at least three years.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytac acknowledges the above citation.

§4055. Operating Record and Reporting

A. Operating Record

1. The owner or operator must keep a written operating record at the facility.
2. The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:
 - a. records and results of used oil analyses performed as described in the analysis plan required under LAC 33:V.4051; and
 - b. summary reports and details of all incidents that require implementation of the contingency plan as specified in LAC 33:V.4045.B.

B. Reporting. A used oil processor/re-refiner must report to the administrative authority, in the form of a letter, on a biennial basis (by March 1 of each even-numbered year), the following information concerning used oil activities during the previous calendar year:

1. the EPA identification number, name, and address of the processor/re-refiner;
2. the calendar year covered by the report; and

3. the quantities of used oil accepted for processing/re-refining and the manner in which the used oil is processed/re-refined, including the specific processes employed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4057. Off-site Shipments of Used Oil

Used oil processors/re-refiners who initiate shipments of used oil off-site must ship this oil using a used oil transporter who has obtained an EPA identification number.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4059. Management of Residues

Owners and operators who generate residues from the storage, processing, or re-refining of used oil must manage the residues as specified in LAC 33:V.4003.E.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

Subchapter F. Standards for Used Oil Burners Which Burn Off-specification Used Oil for Energy Recovery

§4061. Applicability

- A. General. The requirements of this Subchapter apply to used oil burners except as specified in LAC 33:V.4061.A.1 and 2. A used oil burner is a facility where used oil not meeting the specification requirements in LAC 33:V.4005 is burned for energy recovery in devices identified in LAC 33:V.4063.A. Facilities burning used oil for energy recovery under the following conditions are not subject to LAC 33:V.Chapter 40.Subchapter F:
 1. the used oil is burned by the generator in an on-site space heater under the provisions of LAC 33:V.4015; or
 2. the used oil is burned by a processor/re-refiner for purposes of processing used oil, which is considered burning incidentally to used oil processing.

- B. Other Applicable Provisions. Used oil burners who conduct the following activities are also subject to the requirements of other applicable provisions of this Chapter as indicated below:
1. burners who generate used oil must also comply with LAC 33:V.Chapter 40.Subchapter B;
 2. burners who transport used oil must also comply with LAC 33:V.Chapter 40.Subchapter D;
 3. burners who process or re-refine used oil must also comply with LAC 33:V.Chapter 40.Subchapter E, except as provided in LAC 33:V.4063.B;
 4. burners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in LAC 33:V.4005 must also comply with LAC 33:V.Chapter 40.Subchapter G; and
 5. burners who dispose of used oil must comply with Chapter 40.Subchapter G.
- C. Specification Fuel. This Subchapter does not apply to persons burning used oil that meets the used oil fuel specification of LAC 33:V.4005, provided that the burner complies with the requirements of LAC 33:V.Chapter 40.Subchapter G.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.4061 through 4075 do not apply to Cytec because Cytec does not operate used oil burners.

§4063. Restrictions on Burning

- A. Off-specification used oil fuel may be burned for energy recovery only in the following devices:
1. industrial furnaces identified in LAC 33:V.4003;
 2. boilers, as defined in LAC 33:V.4003, that are identified as follows:
 - a. industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

- b. utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or
 - c. used oil-fired space heaters provided that the burner meets the provisions of LAC 33:V.4015; or
 - 3. hazardous waste incinerators subject to regulation under LAC 33:V.Chapter 31 or LAC 33:V.Chapter 43.Subchapter N.
- B. With the following exception, used oil burners may not process used oil unless they also comply with the requirements of LAC 33:V.Chapter 40.Subchapter E. Used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but may not aggregate for purposes of producing on-specification used oil.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4065. Notification

- A. **Identification Numbers.** Used oil burners which have not previously complied with the notification requirements of this Chapter must comply with these requirements and obtain an EPA identification number.
- B. **Mechanics of Notification.** A used oil burner who has not received an EPA identification number may obtain one by notifying the administrative authority of their used oil activity by submitting a completed Louisiana Notification of Hazardous Waste Activity Form (HW-1).
- C. Upon promulgation of this Chapter, used oil burners which burn off-specification used oil for energy recovery and have previously notified must renotify the administrative authority of this used oil activity.
- D. A used oil burner must notify the administrative authority within seven business days if any of the information submitted in the application for the identification number changes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytec acknowledges the above citation.

§4067. Rebuttable Presumption for Used Oil

- A. To ensure that used oil managed at a used oil burner facility is not hazardous waste under the rebuttable presumption of LAC 33:V.4003.B.1.b, a used oil burner must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.
- B. The used oil burner must determine if the used oil contains above or below 1,000 ppm total halogens by:
1. testing the used oil;
 2. applying knowledge of the halogen content of the used oil in light of the materials or processes used; or
 3. if the used oil has been received from a processor/refiner subject to regulation under LAC 33:V.Chapter 40.Subchapter E, using information provided by the processor/re-refiner.
- C. If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste, which is listed in LAC 33:V.4901. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents, which are listed in LAC 33:V.3105.Table 1). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. (202) 512-1800 (document number 955-001-00000-1).
1. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins if they are processed, through a tolling arrangement as described in LAC 33:V.4017.C to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner or disposed.
 2. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.
- D. Record Retention. Records of analyses conducted or information used to comply with LAC 33:V.4067.A)C must be maintained by the burner for at least three years.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:828 (September 1996).

Response: Cytec acknowledges the above citation.

§4069. Used Oil Storage

Used oil burners are subject to all applicable Spill Prevention, Control, and Countermeasures (40 CFR part 112) in addition to the requirements of this Subchapter. Used oil burners are also subject to the Underground Storage Tank (LAC 33:XI) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subchapter.

- A. **Storage Units.** Used oil burners may not store used oil in units other than tanks, containers, or units subject to regulation under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27)29, 31)33, 35, 37, and 43.
- B. **Condition of Units.** Containers and aboveground tanks used to store oil at burner facilities must:
 - 1. be in good condition (no severe rusting, apparent structural defects or deterioration); and
 - 2. not be leaking (no visible leaks).
- C. **Secondary Containment for Containers.** Containers used to store used oil at burner facilities must be equipped with a secondary containment system.
 - 1. The secondary containment system must consist of, at a minimum:
 - a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dike, berm, or retaining wall.
 - 2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- D. **Secondary Containment for Existing Aboveground Tanks.** Existing aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.
 - 1. The secondary containment system must consist of, at a minimum:
 - a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or
 - c. an equivalent secondary containment system.

2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- E. Secondary Containment For New Aboveground Tanks. New aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.
1. The secondary containment system must consist of, at a minimum:
 - a. dikes, berms, or retaining walls; and
 - b. a floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
 - c. an equivalent secondary containment system.
 2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- F. Labels
1. Containers and aboveground tanks used to store used oil at burner facilities must be labeled or marked clearly with the words "Used Oil."
 2. Fill pipes used to transfer used oil into underground storage tanks at burner facilities must be labeled or marked clearly with the words "Used Oil."
- G. Response to Releases. Upon detection of a release of used oil to the environment not subject to the requirements of LAC 33:XI.715 which has occurred after the effective date of the authorized used oil program for the state in which the release is located, a burner must perform the following cleanup steps:
1. stop the release;
 3. contain the released used oil;
 3. clean up and manage properly the released used oil and other materials; and
 4. if necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4071. Tracking

- A. Acceptance. Used oil burners must keep a record of each used oil shipment accepted for burning. These records shall take the form of a used oil reuse/recycle manifest obtained from the department. Records for each shipment must include the following information:
1. the name and address of the transporter who delivered the used oil to the burner;
 2. the name and address of the generator or processor/re-refiner from whom the used oil was sent to the burner;
 3. the EPA identification number of the transporter who delivered the used oil to the burner;
 4. the EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent to the burner;
 5. the quantity of used oil accepted; and
 6. the date of acceptance.
- B. Record Retention. The records described in LAC 33:V.4071.A must be maintained for at least three years.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytac acknowledges the above citation.

§4073. Notices

- A. Certification. Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or processor/re-refiner, the burner must provide to the generator, transporter, or processor/re-refiner a one-time written and signed notice certifying that:
1. the burner has notified the administrative authority stating the location and general description of his used oil management activities; and
 2. the burner will burn the used oil only in an industrial furnace or boiler identified in LAC 33:V.4063.A.
- B. Certification Retention. The certification described in LAC 33:V.4073.A must be maintained for three years from the date the burner last receives shipment of off-specification used oil from that generator, transporter, or processor/re-refiner.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4075. Management of Residues

Burners who generate residues from the storage or burning of used oil must manage the residues as specified in LAC 33:V.4003.E.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

Subchapter G. Standards for Used Oil Fuel Marketers

§4077. Applicability

A. Any person who conducts either of the following activities is subject to the requirements of this Subchapter:

1. directs a shipment of off-specification used oil from their facility to a used oil burner; or
2. first claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in LAC 33:V.4005.

B. The following persons are not marketers subject to this Subchapter:

1. used oil generators and transporters who transport used oil received only from generators, unless the generator or transporter directs a shipment of off-specification used oil from their facility to a used oil burner. Processors/re-refiners who burn some used oil fuel for purposes of processing are considered to be burning incidentally to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processor/re-refiners who incidentally burn used oil are not marketers subject to this Subchapter; and
2. persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of LAC 33:V.4005.

C. Any person subject to the requirements of this Subchapter must also comply with one of the following:

1. LAC 33:V.Chapter 40.Subchapter B;

2. LAC 33:V.Chapter 40.Subchapter D;
3. LAC 33:V.Chapter 40.Subchapter E; or
4. LAC 33:V.Chapter 40.Subchapter F.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.4077 through 4087 do not apply to Cytec because Cytec is not a used oil fuel marketer.

§4079. Prohibitions

A used oil fuel marketer may initiate a shipment of off-specification used oil only to a used oil burner who:

- A. has an EPA identification number; and
- B. burns the used oil in an industrial furnace or boiler identified in LAC 33:V.4063.A.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4081. On-specification Used Oil Fuel

- A. **Analysis of Used Oil Fuel.** A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of LAC 33:V.4005 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.
- B. **Record Retention.** A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under LAC 33:V.4005, must keep copies of analyses of the used oil (or other information used to make the determination) for three years.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4083. Notification

- A. Identification Numbers. A used oil fuel marketer subject to the requirements of this Subchapter who has not previously complied with the notification requirements of this Chapter must comply with these requirements and obtain an EPA identification number.
- B. A marketer who has not received an EPA identification number may obtain one by notifying the administrative authority of their used oil activity by submitting a completed Louisiana Notification of Hazardous Waste Activity Form (HW-1) EPA Form 8700-12.
- C. Upon promulgation of this Chapter, used oil fuel marketers who have previously notified must renotify the administrative authority of used oil activity.
- D. A generator must notify the administrative authority within seven days if any of the information submitted in the application for the identification number changes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytex acknowledges the above citation.

§4085. Tracking

- A. Off-specification Used Oil Delivery. Any used oil marketer who directs a shipment of off-specification used oil to a burner must keep a record of each shipment of used oil to that used oil burner. These records shall take the form of a used oil reuse/recycle manifest obtained from the department. Records for each shipment must include the following information:
 - 1. the name and address of the transporter who delivers the used oil to the burner;
 - 2. the name and address of the burner who receives the used oil;
 - 3. the EPA identification number of the transporter who delivers the used oil to the burner;
 - 4. the EPA identification number of the burner;
 - 5. the quantity of used oil shipped; and
 - 6. the date of shipment.
- B. On-specification Used Oil Delivery. A generator, transporter, processor/re-refiner, or burner who first claims the used oil that is to be burned for energy recovery meets the fuel specifications under LAC 33:V.4005 must keep a record of each shipment of used oil to an on-specification used oil burner. This record shall be in the form of a used oil

reuse/recycle manifest obtained from the department. Records for each shipment must include the following information:

1. the name and address of the facility receiving the shipment;
2. the quantity of used oil fuel delivered;
3. the date of shipment or delivery; and
4. a cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under LAC 33:V.4081.A.

C. **Record Retention.** The records described in LAC 33:V.4085.A and B must be maintained for at least three years.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytec acknowledges the above citation.

§4087. Notices

A. **Certification.** Before a used oil generator, transporter, or processor/re-refiner directs the first shipment of off-specification used oil fuel to a burner, he must obtain a one-time notice written and signed by the burner certifying that:

1. the burner has notified the administrative authority stating the location and general description of his used oil management activities; and
2. the burner will burn the off-specification used oil only in an industrial furnace or boiler identified in LAC 33:V.4063.A.

B. **Certification Retention.** The certification described in LAC 33:V.4087.A must be maintained for three years from the date the last shipment of off-specification used oil is shipped to the burner.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

Subchapter H. Standards for Disposal of Used Oil and Use as a Dust Suppressant

§4089. Applicability

The requirements of this Subchapter apply to all used oils that cannot be recycled and are therefore being disposed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4091. Disposal

- A. Disposal of Hazardous Used Oils. Used oils that are identified as a hazardous waste and cannot be recycled in accordance with this Chapter must be managed in accordance with the hazardous waste management requirements of LAC 33:V.Subpart 1.
- B. Disposal of Nonhazardous Used Oils. Used oils that are not hazardous wastes and cannot be recycled under this Chapter must be disposed in accordance with the requirements of LAC 33:VII.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995).

Response: Cytec acknowledges the above citation.

§4093. Use as a Dust Suppressant

The use of used oil as a dust suppressant is prohibited.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), LR 21:267 (March 1995).

Response: Cytec acknowledges the above citation.

Chapter 43 Interim Status

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality —Hazardous Waste

Chapter 43. Interim Status

§4301. Purpose and Applicability

- A. The purpose of interim status is to allow existing facilities to operate in an appropriate and responsible manner during the period of time required to process and review permit application or until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled. Interim status facilities must, when required by the administrative authority, submit a permit application in compliance with the requirements of these regulations. Failure to submit an application is a violation of interim status and will result in revocation of a facility's interim status designation. Once revoked the facility will be treated as an unpermitted facility and appropriate legal action will be taken.
- B. Any person who owns or operates an "existing HWM facility" or a facility in existence on the effective date of statutory or regulatory amendments under the act that render the facility subject to the requirement to have an RCRA permit shall have interim status and shall be treated as having been issued a permit to the extent he or she has:
1. complied with the requirements of section 3010(a) of RCRA pertaining to notification of hazardous waste activity;
[Comment: Some existing facilities may not be required to file a notification under section 3010(a) of RCRA. These facilities may qualify for interim status by meeting LAC 33:V.4301.B.2.]
 2. complied with the requirements of LAC 33:V.Chapter 5.Subchapter A governing submission of Part I applications;
- C. Hazardous waste management facilities with interim status are treated as a facility with an interim permit until a final determination is made on the entire permit application, except as provided under LAC 33:V.Chapter 26.
- D. Facilities having interim status are subject to all applicable federal and state laws and regulations, including these regulations.
- E. Interim status facilities must comply with LAC 33:V.Chapters 3, 5, 9, 11, 15, 39, 41, 43, and 49. The requirements of this Chapter apply to owners or operators of all facilities which treat, store, or dispose of hazardous waste referred to in LAC 33:V.Chapter 22, and Chapter 22 standards are material conditions or requirements of interim status standards.
- F. Interim status is not available to any facility that has been previously denied a permit for the treatment, storage or disposal of hazardous waste or for which authority to operate has been previously terminated.

- G. EPA Hazardous Waste Numbers F020, F021, F022, F023, F026, or F027 must not be managed at facilities subject to regulation under LAC 33:V. 4301—4547 unless:
1. the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;
 2. the waste is stored in tanks or containers;
 3. the waste is stored or treated in waste piles that meet the requirements of LAC 33:V.2301.C as well as all other applicable requirements of LAC 33:V.Chapter 43.Subchapter K;
 4. the waste is burned in incinerators that are certified pursuant to the standards and procedures in LAC 33:V.4522; or
 5. the waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in LAC 33:V.4534.
- H. Failure to Qualify for Interim Status. If the department has reason to believe upon examination of a Part I application that it fails to meet the requirements of these regulations, it shall notify the owner or operator in writing of the apparent deficiency. Such notice shall specify the grounds for the department's belief that the application is deficient. The owner or operator shall have 30 days from receipt to respond to such a notification and to explain or cure the alleged deficiency in his Part I application. If, after such notification and opportunity for response, the department determines that the application is deficient, it may take appropriate enforcement action.
- I. Requirements for interim status —LAC 33:V.Chapter 1, 3, 5, 39, 41, and 49—also apply to interim status facilities.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:84 (February 1987), LR 16:220 (March 1990), LR 17:362 (April 1991), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1743 (September 1998).

Response: Cytec acknowledges the regulations cited in LAC 33:Chapter 43. The regulations cited in LAC 33:V.Chapter 43 are not applicable to Cytec because Cytec is currently operating under a hazardous waste permit issued by LDEQ.

Chapter 49 Lists of Hazardous Waste

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 49. Lists of Hazardous Wastes

§4901. Category I Hazardous Wastes

- A. A solid waste is a hazardous waste if it is listed in this Chapter, unless it has been excluded from this list under LAC 33:V.105.M.

[Comment: Chapter 49 is divided into two sections: Category I Hazardous Wastes, which consist of Hazardous Wastes from nonspecific and specific sources (F & K wastes), Acute Hazardous Wastes (P wastes), and Toxic Wastes (U wastes) (LAC 33:V.4901); and Category II Hazardous Wastes, which consist of wastes which are ignitable, corrosive, reactive, or toxic (LAC 33:V.4903).]

Hazard codes are defined as follows for the listed hazardous wastes.

Ignitable waste (I)

Corrosive waste (C)

Reactive waste (R)

Toxicity Characteristic waste (E)

Acute hazardous waste (H)

or Acutely hazardous waste

Toxic waste (T)

1. Each hazardous waste listed in this Chapter is assigned an EPA Hazardous Waste number, which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 or 105.A of the act and certain recordkeeping and reporting requirements under LAC 33:V.Chapters 3-29, 31-39, and 43.
2. The following hazardous wastes listed in LAC 33:V.4901.B and C are subject to the exclusion limits for acutely hazardous wastes established in LAC 33:V.Chapter 39: Hazardous Wastes Numbers F020, F021, F022, F023, F026, and F027.

B. Hazardous Wastes from Nonspecific Sources

1. The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded pursuant to LAC 33:V.105.H.
(Note: EPA in January 1985 added new listed hazardous wastes.)
Table 1. Hazardous Wastes from Nonspecific Sources Industry and EPA Hazardous Waste No. Hazard Code Hazardous Waste Generic
F001 (T) The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of 10% or more (by volume) of one or more of the above halogenated solvents or those

solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F002 (T) The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-tri-fluoroethane, ortho-dichlorobenzene, tri-chlorofluoromethane and 1,1,2- trichloroethane; all spent solvent mixtures/blends containing, before use, a total of 10 % or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F003 (I)* The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of 10% or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F004 (T) The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of 10% or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F005 (I,T) The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of 10% or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F006 (T) Wastewater treatment sludges from electroplating operations except from the following processes:

- (1) Sulfuric acid anodizing of aluminum;
- (2) tin plating on carbon steel;
- (3) zinc plating (segregated basis) on carbon steel;
- (4) aluminum or zinc-aluminum plating on carbon steel;
- (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and
- (6) chemical etching and milling of aluminum.

F007 (R,T) Spent cyanide plating bath solutions from electroplating operations.

F008 (R,T) Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.

F009 (R,T) Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.

F010 (R,T) Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.

F011 (R,T) Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.

F012 (T) Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.

F019 (T) Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.

F020 (H) Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include

wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)

F021 (H) Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.

F022 (H) Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.

F023 (H) Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2, 4, 5-trichlorophenol.)

F024 (T) Processed wastes, including, but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in LAC 33:V.4901.B or C.)

F025 (T) Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.

F026 (H) Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.

F027 (H) Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols.

(This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2, 4, 5-trichlorophenol as the sole component.)

F028 (T) Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.

F032 (T) Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with LAC 33:V.4901.B.3 of this Subpart and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

F034 (T) Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

F035 (T) Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

F037 (T) Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators, tanks and impoundments, ditches and other conveyances, sumps, and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in LAC 33:V.4901.B.2.b (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.

F038 (T) Petroleum refinery secondary (emulsified) oil/water/solids separation sludge—Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in LAC 33:V.4901.B.2.b (including sludges and floats generated in one or more additional units after wastewaters have been

treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.

F039 (T) Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under LAC 33:V.4901. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)

* (I,T) should be used to specify mixtures containing ignitable and toxic constituents.

2. Listing Specific Definitions

- a. For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.
- b. For the purposes of the F037 and F038 listing:
 - i. aggressive biological treatment units are defined as units which employ one of the following four treatment methods:
 - (a). activated sludge;
 - (b). trickling filter;
 - (c). rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or
 - (d). high-rate aeration.
 - ii. high-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and
 - (a). the unit employs a minimum of six hp per million gallons of treatment volume; and either
 - (b). the hydraulic retention time of the unit is no longer than five days; or
 - (c). the hydraulic retention time is no longer than 30 days, and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.
 - iii. generators and treatment, storage, and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage, and disposal facilities must maintain, in their operating or other onsite records, documents and data sufficient to prove that:
 - (a). the unit is an aggressive biological treatment unit as defined in this Subparagraph; and
 - (b). the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.
- c. For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement. For the purposes of the F038 listing:

- i. sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement; and
 - ii. floats are considered to be generated at the moment they are formed in the top of the unit.
- 3. Deletion of Certain Hazardous Waste Codes Following Equipment Cleaning and Replacement
 - a. Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of Subsection B.3.b and c of this Section. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.
 - b. Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including but not limited to treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the groundwater, surface water, or atmosphere.
 - i. Generators shall do one of the following:
 - (a). prepare and follow an equipment cleaning plan and lean equipment in accordance with this Section;
 - (b). prepare and follow an equipment replacement plan and replace equipment in accordance with this Section; or
 - (c). document cleaning and replacement in accordance with this Section, carried out after termination of use of chlorophenolic preservations;
 - ii. Cleaning Requirements
 - (a). prepare and sign a written equipment cleaning plan that describes:
 - (i). the equipment to be cleaned;
 - (ii). how the equipment will be cleaned;
 - (iii). the solvent to be used in cleaning;
 - (iv). how solvent rinses will be tested; and
 - (v). how cleaning residues will be disposed.
 - (b). equipment must be cleaned as follows:
 - (i). remove all visible residues from process equipment; and
 - (ii). rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.
 - (c). Analytical Requirements
 - (i). rinses must be tested in accordance with Method 8290, as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA

- Publication SW-846, as incorporated by reference at LAC 33:V.110;
- (ii). "Not detected" means at or below the lower method calibration limit (MCL) in Method 8290, as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110;
 - (d). The generator must manage all residues from the cleaning process as F032 waste.
- iii. Replacement Requirements
- (a). prepare and sign a written equipment replacement plan that describes:
 - (i). the equipment to be replaced;
 - (ii). how the equipment will be replaced; and
 - (iii). how the equipment will be disposed.
 - (b). the generator must manage the discarded equipment as F032 waste.
- iv. Documentation is required which states that previous equipment cleaning and/or replacement was performed in accordance with this Section and occurred after cessation of use of chlorophenolic preservatives.
- c. The generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record:
- i. the name and address of the facility;
 - ii. formulations previously used and the date on which their use ceased in each process at the plant;
 - iii. formulations currently used in each process at the plant;
 - iv. the equipment cleaning or replacement plan;
 - v. the name and address of any persons who conducted the cleaning and replacement;
 - vi. the dates on which cleaning and replacement were accomplished;
 - vii. the dates of sampling and testing;
 - viii. a description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;
 - ix. a description of the tests performed, the date the tests were performed, and the results of the tests;
 - x. the name and model numbers of the instrument(s) used in performing the tests;
 - xi. QA/QC documentation; and
 - xii. the following statement signed by the generator or his authorized representative: "I certify under penalty of law that all process equipment required to be cleaned or replaced under LAC 33:V.4901.B was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment."

- C. Hazardous wastes from specific sources are listed in Table 2.
- Table 2. Hazardous Wastes from Specific Sources Industry and EPA Hazardous Waste No. Hazard Code Hazardous Waste
- Wood Preservation
- K001 (T) Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol
- Inorganic Pigments
- K002 (T) Wastewater treatment sludge from the production of chrome yellow and orange pigments
- K003 (T) Wastewater treatment sludge from the production of molybdate orange pigments
- K004 (T) Wastewater treatment sludge from the production of zinc yellow pigments
- K005 (T) Wastewater treatment sludge from the production of chrome green pigments
- K006 (T) Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)
- K007 (T) Wastewater treatment sludge from the production of iron blue pigments
- K008 (T) Oven residue from the production of chrome oxide green pigments
- Organic Chemicals
- K009 (T) Distillation bottoms from the production of acetaldehyde from ethylene
- K010 (T) Distillation side cuts from the production of acetaldehyde from ethylene
- K011 (R,T) Bottom stream from the wastewater stripper in the production of acrylonitrile
- K013 (R,T) Bottom stream from the acetonitrile column in the production of acrylonitrile
- K014 (T) Bottoms from the acetonitrile purification column in the production of acrylonitrile
- K015 (T) Still bottoms from the distillation of benzyl chloride
- K016 (T) Heavy ends of distillation residues from the production of carbon tetrachloride
- K017 (T) Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin
- K018 (T) Heavy ends from the fractionation column in ethyl chloride production
- K019 (T) Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production
- K020 (T) Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production
- K021 (T) Aqueous spent antimony catalyst waste from fluoromethanes production
- K022 (T) Distillation bottom tars from the production of phenol/acetone from cumene
- K023 (T) Distillation light ends from the production of phthalic anhydride from naphthalene
- K024 (T) Distillation bottoms from the production of phthalic anhydride from naphthalene
- K093 (T) Distillation light ends from the production of phthalic anhydride from ortho-xylene
- K094 (T) Distillation bottoms from the production of phthalic anhydride from ortho-xylene
- K025 (T) Distillation bottoms from the production of nitrobenzene by the nitration of benzene
- K026 (T) Stripping still tails from the production of methyl ethyl pyridines
- K027 (R,T) Centrifuge and distillation residues from toluene diisocyanate production

- K028 (T) Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane
- K029 (T) Waste from the product steam stripper in the production of 1,1,1-trichloroethane
- K095 (T) Distillation bottoms from the production of 1,1,1-trichloroethane
- K096 (T) Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane
- K030 (T) Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene
- K083 (T) Distillation bottoms from aniline production
- K103 (T) Process residues from aniline extraction from the production of aniline
- K104 (T) Combined wastewater streams generated from nitrobenzene/aniline production
- K085 (T) Distillation or fractionation column bottoms from the production of chlorobenzenes
- K105 (T) Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes
- K107 (C,T) Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
- K108 (I,T) Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
- K109 (T) Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
- K110 (T) Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
- K111 (C,T) Product washwaters from the production of dinitrotoluene via nitration of toluene
- K112 (T) Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene
- K113 (T) Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene
- K114 (T) Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene
- K115 (T) Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene
- K116 (T) Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine
- K117 (T) Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene
- K118 (T) Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene
- K136 (T) Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene
- K149 (T) Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride.)

K150 (T) Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha-(or methyl-) chlorinated toluenes, ring chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

K151 (T) Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha-(or methyl-) chlorinated toluenes, ring chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

K156 (T) Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)

K157 (T) Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)

K158 (T) Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)

K159 (T) Organics from the treatment of thiocarbamate wastes.

K161 (R,T) Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust, and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125-K126.)

Inorganic Chemicals

K071 (T) Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used

K073 (T) Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production

K106 (T) Wastewater treatment sludge from the mercury cell process in chlorine production

Pesticides

K031 (T) By-product salts generated in the production of MSMA and cacodylic acid

K032 (T) Wastewater treatment sludge from the production of chlordane

K033 (T) Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane

K034 (T) Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane

K097 (T) Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane

K035 (T) Wastewater treatment sludges generated in the production of creosote

K036 (T) Still bottoms from toluene reclamation distillation in the production of disulfoton

K037 (T) Wastewater treatment sludges from the production of disulfoton

K038 (T) Wastewater treatment sludge from the washing and stripping of phorate production

K039 (T) Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate

K040 (T) Wastewater treatment sludge from the production of phorate

K041 (T) Wastewater treatment sludge from the production of toxaphene

K098 (T) Untreated process wastewater from the production of toxaphene
K042 (T) Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T
K043 (T) 2,6-Dichlorophenol waste from the production of 2,4-D
K099 (T) Untreated wastewater from the production of 2,4-D
K123 (T) Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt
K124 (C,T) Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts
K125 (T) Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts
K126 (T) Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts
K131 (C,T) Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide
K132 (T) Spent absorbent and wastewater separator solids from the production of methyl bromide
Explosives
K044 (R) Wastewater treatment sludges from the manufacturing and processing of explosives
K045 (R) Spent carbon from the treatment of wastewater containing explosives
K046 (T) Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds
K047 (R) Pink/red water from TNT operations
Petroleum Refining
K048 (T) Dissolved air flotation (DAF) float from the petroleum refining industry
K049 (T) Slop oil emulsion solids from the petroleum refining industry
K050 (T) Heat exchanger bundle cleaning sludge from the petroleum refining industry
K051 (T) API separator sludge from the petroleum refining industry
K052 (T) Tank bottom (leaded) from the petroleum refining industry
K061 (T) Emission control dust/sludge from the primary production of steel in electric furnaces
K062 (C,T) Spent pickle liquor generated by steel finishing operations of iron and steel industry (SIC Codes 331 and 332)
Primary Copper
K064 (T) Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production
Primary Lead
K065 (T) Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities
Primary Zinc
K066 (T) Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production
Primary Aluminum
K088 (T) Spent potliners from primary aluminum reduction
Ferroalloys
K090 (T) Emission control dust or sludge from ferrochromium-silicon production
K091 (T) Emission control dust or sludge from ferrochromium production

Secondary Lead

K069 (T) Emission control dust/sludge from secondary lead smelting.

(Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action affecting this stay, EPA will publish a notice of the action in the Federal Register)

K100 (T) Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting

Veterinary Pharmaceuticals

K084 (T) Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds

K101 (T) Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds

K102 (T) Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds

Ink Formulation

K086 (T) Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning

tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead

Coking

K060 (T) Ammonia still lime sludge from coking operations

K087 (T) Decanter tank tar sludge from coking operations

K141 (T) Process residues from the recovery of coal tar, including but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank car sludge from coking operations).

K142 (T) Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.

K143 (T) Process residues from the recovery of light oil, including but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.

K144 (T) Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.

K145 (T) Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.

K147 (T) Tar storage tank residues from coal tar refining.

K148 (T) Residues from coal tar distillation, including but not limited to, still bottoms.

- D. Discarded Commercial Chemical Products, Off-specification Species, Container Residues, Spill Residues Thereof, Any Associated Wastewaters, and Any Discarded Process Wastewaters. The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in LAC 33:V.109 (definition of solid waste), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or**

when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel, or when they present a threat to groundwater or human health and the environment:

1. any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in LAC 33:V.4901.E or F;
2. any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in LAC 33:V.4901.E or F;
3. any residue remaining in a container or an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in LAC 33:V.4901.E or F, unless the container is empty as defined in LAC 33:V.109.Empty Container.2 ;
4. any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in LAC 33:V.4901.E or F, or any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in LAC 33:V.4901.E or F;

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance that is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in LAC 33:V.4901.E or F. Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in LAC 33:V.4901.E or F, such waste will be listed in either LAC 33:V.4901.B or C

- E. The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates referred to in LAC 33:V.4901.D.1-4 are identified as acute hazardous wastes (H) and are subject to the small quantity exclusions defined in LAC 33:V.3911. These wastes and their corresponding EPA Hazardous Waste Numbers are listed in Table 3.

[Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity) and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.]

Table 3. Acute Hazardous Wastes EPA Chemical Hazardous Abstract Waste No. Number
Hazardous Waste
P023 107-20-0 Acetaldehyde, chloro-

P002 591-08-2 Acetamide, N-(aminothioxomethyl)-
P057 640-19-7 Acetamide, 2-fluoro-
P058 62-74-8 Acetic acid, fluoro-, sodium salt
P002 591-08-2 1-Acetyl-2-thiourea
P003 107-02-8 Acrolein
P070 116-06-3 Aldicarb
P203 1646-88-4 Aldicarb sulfone
P004 309-00-2 Aldrin
P005 107-18-6 Allyl alcohol
P006 20859-73- Aluminum phosphide (R,T) 8
P007 2763-96-4 5-(aminomethyl)-3-isoxazolol
P008 504-24-5 4-Aminopyridine
P009 131-74-8 Ammonium picrate (R)
P119 7803-55-6 Ammonium vanadate
P099 506-61-6 Argentate (1-), bis(cyano-C)-, potassiu
P010 7778-39-4 Arsenic acid H AsO 3 4
P012 1327-53-3 Arsenic oxide As O 2 3
P011 1303-28-2 Arsenic oxide As O 2 5
P011 1303-28-2 Arsenic pentoxide
P012 1327-53-3 Arsenic trioxide
P038 692-42-2 Arsine, diethyl-
P036 696-28-6 Arsonous dichloride, phenyl-
P054 151-56-4 Aziridine
P067 75-55-8 Aziridine, 2-methyl-
P013 542-62-1 Barium cyanide
P024 106-47-8 Benzenamine, 4-chloro-
P077 100-01-6 Benzenamine, 4-nitro
P028 100-44-7 Benzene, (chloromethyl)-
P042 51-43-4 1, 2-Benzenediol, 4-[1- hydroxy-2-(methylamino) ethyl], (R)-
P046 122-09-8 Benzeneethanamine, alpha, alpha-dimethyl-
P014 108-98-5 Benzenethiol
P127 1563-66-2 7-Benzofuranol, 2,3-dihydro-2,2- dimethyl-, methylcarbamate
P188 57-64-7 Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-
1,3a,8- trimethylpyrrolo[2,3-b]indol- 5-yl methylcarbamate ester (1:1)
P001 81-81-2 2H-1-Benzopyran-2-one, 4-hydroxy- 1 3-(3-oxo-1-phenylbutyl)-, & salts, when
present at concentrations greater than 0.3%
P028 100-44-7 Benzyl chloride
P015 7440-41-7 Beryllium Powder
P017 598-31-2 Bromoacetone
P018 357-57-3 Brucine
P045 39196-18- 2-Butanone, 4 3,3-dimethyl-1-(methyl- thio)-, O- [(methylamino) carbonyl]
oxime
P021 592-01-8 Calcium cyanide
P021 592-01-8 Calcium cyanide Ca(CN)2
P189 55285-14- Carbamic acid, [(dibutylamino)-8 thio]methyl-, 2,3-dihydro-2,2- dimethyl-7-
benzofuranyl ester
P191 644-64-4 Carbamic acid, dimethyl-, 1- [(dimethyl-amino)carbonyl]-5- methyl-1H-pyrazol-
3-yl ester

P192 119-38-0 Carbamic acid, dimethyl-, 3- methyl-1- (1-methylethyl)-1H-pyrazol- 5-yl ester
P190 1129-41-5 Carbamic acid, methyl-, 3- methylphenyl ester
P127 1563-66-2 Carbofuran
P022 75-15-0 Carbon disulfide
P095 75-44-5 Carbonic dichloride
P189 55285-14- Carbosulfan 8
P023 107-20-0 Chloroacetaldehyde
P024 106-47-8 p-Chloroaniline
P026 5344-82-1 1-(o-Chlorophenyl)thiourea
P027 542-76-7 3-Chloropropionitrile
P029 544-92-3 Copper cyanide
P029 544-92-3 Copper cyanide Cu(CN)
P202 64-00-6 m-Cumenyl methylcarbamate
P030 Cyanides (soluble cyanide salts), not otherwise specified
P031 460-19-5 Cyanogen
P033 506-77-4 Cyanogen chloride
P033 506-77-4 Cyanogen chloride (CN)C1
P034 131-89-5 2-Cyclohexyl-4,6-dinitrophenol
P016 542-88-1 Dichloromethyl ether
P036 696-28-6 Dichlorophenylarsine
P037 60-57-1 Dieldrin
P038 692-42-2 Diethylarsine
P041 311-45-5 Diethyl-p-nitrophenyl phosphate
P040 297-97-2 O,O-Diethyl O-pyrazinyl phosphor-othioate
P043 55-91-4 Diisopropylfluorophosphate (DFP)
P004 309-00-2 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10- hexachloro-1,4,4a, 5,8,8a,-
hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha, 8alpha, 8abeta)-
P060 465-73-6 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10- hexachloro-1,4,4a, 5,8,8a,-
hexahydro-,
(1alpha,4alpha,4abeta,5beta,8beta, 8abeta)-
P037 60-57-1 2,7:3,6-Dimethanonaphth [2,3- b]oxirene,3,4,5,6,9,9- hexachloro-
1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha, 3beta,6beta,6aalpha,7beta, 7aalpha)-
P051 72-20-8 2,7:3,6-Dimethanonaphth [2,3-b] 1 oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6
,6a,7,7a- octahydro-,
(1aalpha,2beta,2abeta, 3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P044 60-51-5 Dimethoate
P046 122-09-8 alpha, alpha-Dimethylphenethylamine
P191 644-64-4 Dimetilan
P047 534-52-1 4,6-Dinitro-o-cresol, & salts 1
P048 51-28-5 2,4-Dinitrophenol
P020 88-85-7 Dinoseb
P085 152-16-9 Diphosphoramide, octamethyl-
P111 107-49-3 Diphosphoric acid, tetraethyl ester
P039 298-04-4 Disulfoton
P049 541-53-7 Dithiobiuret
P185 26419-73- 1,3-Dithiolane-2-carboxaldehyde, 8 2,4-dimethyl-, O-[(methylamino)-carbonyl]
oxime
P050 115-29-7 Endosulfan

P088 145-73-3 Endothall
P051 72-20-8 Endrin
P051 72-20-8 Endrin, & metabolites
P042 51-43-4 Epinephrine
P031 460-19-5 Ethanedinitrile
P194 23135-22- Ethanimidothioc acid, 2- 0 (dimethylamino)-N-[[[(methylamino) carbonyl]oxy]-
2-oxo-, methyl ester
P066 16752-77- Ethanimidothioic acid, N-5 [[[(methylamino)carbonyl]oxy]-, methyl ester
P101 107-12-0 Ethyl cyanide
P054 151-56-4 Ethyleneimine
P097 52-85-7 Famphur
P056 7782-41-4 Fluorine
P057 640-19-7 Fluoroacetamide
P058 62-74-8 Fluoroacetic acid, sodium salt
P198 23422-53- Formetanate hydrochloride 9
P197 17702-57- Formparanate 7
P065 628-86-4 Fulminic acid, mercury (2+) salt (R,T)
P059 76-44-8 Heptachlor
P062 757-58-4 Hexaethyl tetraphosphate
P116 79-19-6 Hydrazinecarbothioamide
P068 60-34-4 Hydrazine, methyl-
P063 74-90-8 Hydrocyanic acid
P063 74-90-8 Hydrogen cyanide
P096 7803-51-2 Hydrogen phosphide
P060 465-73-6 Isodrin
P192 119-38-0 Isolan
P202 64-00-6 3-Isopropopylphenyl N-methylcarbamate
P007 2763-96-4 3 (2H)-Isoxazolone, 5-(aminomethyl)-
P196 15339-36- Manganese, 3 bis(dimethylcarbamodithioato-S, S')-
P196 15339-36- Manganese, dimethyldithiocarbamate 3
P092 62-38-4 Mercury, (acetato-O)phenyl-
P065 628-86-4 Mercury fulminate (R,T)
P082 62-75-9 Methanamine, N-methyl-N-nitroso-
P064 624-83-9 Methane, isocyanato-
P016 542-88-1 Methane, oxybis[chloro-
P112 509-14-8 Methane, tetranitro- (R)
P118 75-70-7 Methanethiol, trichloro-
P198 23422-53- Methanimidamide, N,N-dimethyl-N'-9 [3-[[[(methylamino)-carbonyl]
oxy]phenyl]-monohydrochloride
P197 17702-57- Methanimidamide, N,N-dimethyl-N'-7 [2-methyl-4-[[[(methylamino)
carbonyl]oxy]phenyl]-
P050 115-29-7 6, 9-Methano-2,4,3-benzo-dioxathiepin , 6,7,8,9,10,10-hexachloro-1,5,5a,6,
9,9a- hexahydro-,3-oxide
P059 76-44-8 4,7-Methano-1H-indene,1,4,5,6,7, 8,8-heptachloro-3a,4,7,7a-tetrahyd ro-
P199 2032-65-7 Methiocarb
P066 16752-77- Methomyl 5
P068 60-34-4 Methyl hydrazine
P064 624-83-9 Methyl isocyanate

P069 75-86-5 2-Methylactonitrile
P071 298-00-0 Methyl parathion
P190 1129-41-5 Metolcarb
P128 315-8-4 Mexacarbate
P072 86-88-4 alpha-Naphthylthiourea
P073 13463-39- Nickel carbonyl 3
P073 13463-39- Nickel carbonyl Ni(CO) (T-4)-3 4
P074 557-19-7 Nickel cyanide
P074 557-19-7 Nickel cyanide Ni(CN)2
P075 54-11-5 Nicotine, & salts 1
P076 10102-43- Nitric oxide 9
P077 100-01-6 p-Nitroaniline
P078 10102-44- Nitrogen dioxide 0
P076 10102-43- Nitrogen oxide NO 9
P078 10102-44- Nitrogen oxide NO 0 2
P081 55-63-0 Nitroglycerine (R)
P082 62-75-9 N-Nitrosodimethylamine
P084 4549-40-0 N-Nitrosomethylvinylamine
P085 152-16-9 Octamethylpyrophosphoramide
P087 20816-12- Osmium oxide OsO , (T-4)-0 4
P087 20816-12- Osmium tetroxide 0
P088 145-73-3 7-Oxabicyclo[2.2.1]heptane-2,3- dicarboxylic acid
P194 23135-22- Oxamyl 0
P089 56-38-2 Parathion
P034 131-89-5 Phenol, 2-cyclohexyl-4,6-dinitro-
P199 2032-65-7 Phenol, (3,5-dimethyl-4- (methylthio)-, methylcarbamate
P128 315-18-4 Phenol, 4-(dimethylamino)-3,5- dimethy-, methylcarbamate (ester)
P048 51-28-5 Phenol, 2,4-dinitro-
P047 534-52-1 Phenol, 2-methyl-4,6-dinitro-, & 1 salts
P201 2631-37-0 Phenol, 3-methyl-5-(1- methylethyl)-, methyl carbamate
P202 64-00-6 Phenol, 3-(1-methylethyl)-, methyl carbamate
P020 88-85-7 Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009 131-74-8 Phenol, 2,4,6-trinitro-, ammonium salt (R)
P092 62-38-4 Phenylmercury acetate
P093 103-85-5 Phenylthiourea
P094 298-02-2 Phorate
P095 75-44-5 Phosgene
P096 7803-51-2 Phosphine
P041 311-45-5 Phosphoric acid, diethyl 4- nitrophenyl ester
P039 298-04-4 Phosphorodithioic acid, O,O-diethyl S-[2-(ethyl- thio)ethyl] ester
P094 298-02-2 Phosphorodithioic acid, O, O-diethyl S-[(ethylthio)methyl] ester
P044 60-51-5 Phosphorodithioic acid, O, O-dimethyl S-[2-(methylamino)-2- oxoethyl] ester
P043 55-91-4 Phosphorofluoridic acid, bis (1-methylethyl) ester
P089 56-38-2 Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040 297-97-2 Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097 52-85-7 Phosphorothioic acid, O-[4- [(dimethylamino)sulfonyl] phenyl]O,O- dimethyl ester
P071 298-00-0 Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P204 57-47-6 Physostigmine

P188 57-64-7 Physostigmine salicylate
P110 78-00-2 Plumbane, tetraethyl-
P098 151-50-8 Potassium cyanide
P098 151-50-8 Potassium cyanide K(CN)
P099 506-61-6 Potassium silver cyanide
P201 2631-37-0 Promecarb
P203 1646-88-4 Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime
P070 116-06-3 Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101 107-12-0 Propanenitrile
P027 542-76-7 Propanenitrile, 3-chloro-
P069 75-86-5 Propanenitrile, 2-hydroxy-2-methyl-
P081 55-63-0 1,2,3-Propanetriol, trinitrate (R)
P017 598-31-2 2-Propanone, 1-bromo-
P102 107-19-7 Propargyl alcohol
P003 107-02-8 2-Propenal
P005 107-18-6 2-Propen-1-ol
P067 75-55-8 1,2-Propylenimine
P102 107-19-7 2-Propyn-1-ol
P008 504-24-5 4-Pyridinamine
P075 54-11-5 Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (s)- & salts
P204 57-47-6 Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-methyl
carbamate (ester), (3aS-cis)-
P114 12039-52- Selenious acid, dithallium(1+) O salt
P103 630-10-4 Selenourea
P104 506-64-9 Silver cyanide
P104 506-64-9 Silver cyanide Ag(CN)
P105 26628-22- Sodium azide 8
P106 143-33-9 Sodium cyanide
P106 143-33-9 Sodium cyanide Na(CN)
P108 57-24-9 Strychnidin-10-one, & salts 1
P018 357-57-3 Strychnidin-10-one, 2,3-dimethoxy-
P108 57-24-9 Strychnine, & salts 1
P115 7446-18-6 Sulfuric acid, dithallium(1+) salt
P109 3689-24-5 Tetraethyldithiopyrophosphate
P110 78-00-2 Tetraethyllead
P111 107-49-3 Tetraethyl pyrophosphate
P112 509-14-8 Tetranitromethane (R)
P062 757-58-4 Tetrphosphoric acid, hexaethyl ester
P113 1314-32-5 Thallic oxide
P113 1314-32-5 Thallium oxide Tl₂O₃
P114 12039-52- Thallium(I) selenite O
P115 7446-18-6 Thallium(I) sulfate
P109 3689-24-5 Thiodiphosphoric acid, tetraethyl ester
P045 39196-18- Thiofanox 4
P049 541-53-7 Thioimidodicarbonic diamide [(H N)C(S)] NH₂ 2
P014 108-98-5 Thiophenol
P116 79-19-6 Thiosemicarbazide
P026 5344-82-1 Thiourea, (2-chlorophenyl)

P072 86-88-4 Thiourea, 1-naphthalenyl-
P093 103-85-5 Thiourea, phenyl-
P185 26419-73- Tirpate 8
P123 8001-35-2 Toxaphene
P118 75-70-7 Trichloromethanethiol
P119 7803-55-6 Vanadic acid, ammonium salt
P120 1314-62-1 Vanadium oxide V O 2 5
P120 1314-62-1 Vanadium pentoxide
P084 4549-40-0 Vinylamine, N-methyl-N-nitroso-
P001 81-81-2 Warfarin, & salts, when present at 1 concentrations greater than 0.3%
P205 137-30-4 Zinc, bis(dimethylcarbomodithioato-S, S')-
P121 557-21-1 Zinc cyanide
P121 557-21-1 Zinc cyanide Zn(CN)2
P122 1314-84-7 Zinc phosphide Zn P , when present 3 2 at concentrations greater than 10%
(R,T)
P205 137-30-4 Ziram
CAS Number given for parent compound only. 1

- F. Commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in LAC 33:V.4901.D.1-4 are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity generator exclusion defined in LAC 33:V.3903, 3913, and 3915.A and C. These wastes and their corresponding EPA Hazardous Waste Numbers are listed in Table 4. [Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability), and C (Corrosivity). Absence of a letter indicates that the compound is listed only for toxicity.]

Table 4. Toxic Wastes EPA Hazardous Hazardous Waste Waste No. Chemical Abstract Number

U394 30558-43-1 A2213
U001 75-07-0 Acetaldehyde (I)
U034 75-87-6 Acetaldehyde, trichloro-
U187 62-44-2 Acetamide, N-(4-ethoxyphenyl)-
U005 53-96-3 Acetamide, N-9H-fluoren-2-yl-
U240 94-75-7 Acetic acid, (2,4-dichloro- phenoxy)-, salts & esters
U112 141-78-6 Acetic acid, ethyl ester (I)
U144 301-04-02 Acetic acid, lead (2+) salt
U214 563-68-8 Acetic acid, thallium(1+) salt
See F027 93-76-5 Acetic acid, (2,4,5-trichlorophenoxy)-
U002 67-64-1 Acetone (I)
U003 75-05-8 Acetonitrile (I,T)
U004 98-86-2 Acetophenone
U005 53-96-3 2-Acetylaminofluorene
U006 75-36-5 Acetyl chloride (C,R,T)
U007 79-06-1 Acrylamide
U008 79-10-7 Acrylic acid (I)
U009 107-13-1 Acrylonitrile

U011 61-82-5 Amitrole
U012 62-53-3 Aniline (I,T)
U136 75-60-5 Arsinic acid, dimethyl-
U014 492-80-8 Auramine
U015 115-02-6 Azaserine
U010 50-07-7 Azirino [2',3':3,4]pyrrolo[1,2-a] indole-4,7-dione,6-amino-8- [[[amino carbonyl]oxy]methyl]- 1,1a,2,8,8a,8b,- hexahydro-8a-methoxy- 5-methyl-, [1aS-(1aalpha,8beta,8aalpha, 8balpha)]-
U280 101-27-9 Barban
U278 22781-23-3 Bendiocarb
U364 22961-82-6 Bendiocarb phenol
U271 17804-35-2 Benomyl
U157 56-49-5 Benz [j] aceanthrylene, 1,2-dihydro-3-methyl-
U016 225-51-4 Benz[c]acridine
U016 225-51-4 3,4-Benzacridine
U017 98-87-3 Benzal chloride
U192 23950-58-5 Benzamide,3,5-dichloro-N-(1,1-dimethyl-2 propynyl)-
U018 56-55-3 Benz[a]anthracene
U094 57-97-6 Benz[a]anthracene, 7,12-dimethyl-
U012 62-53-3 Benzenamine (I,T)
U014 492-80-8 Benzenamine,4,4'-carbonimidoylbis (N,N-dimethyl-
U049 3165-93-3 Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093 60-11-7 Benzenamine,N,N-dimethyl-4-(phenylazo)-
U328 95-53-4 Benzenamine, 2-methyl-
U353 106-49-0 Benzenamine, 4-methyl-
U158 101-14-4 Benzenamine, 4,4'-methylenebis [2-chloro-
U222 636-21-5 Benzenamine, 2-methyl-, hydrochloride
U181 99-55-8 Benzenamine, 2-methyl-5-nitro-
U019 71-43-2 Benzene (I,T)
U038 510-15-6 Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030 101-55-3 Benzene, 1-bromo-4-phenoxy-
U035 305-03-3 Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037 108-90-7 Benzene, chloro-
U221 25376-45-8 Benzenediamine, ar-methyl-
U028 117-81-7 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069 84-74-2 1,2-Benzenedicarboxylic acid, dibutyl ester
U088 84-66-2 1,2-Benzenedicarboxylic acid, diethyl ester
U102 131-11-3 1,2-Benzenedicarboxylic acid, dimethyl ester
U107 117-84-0 1,2-Benzenedicarboxylic acid, dioctyl ester
U070 95-50-1 Benzene, 1,2-dichloro-
U071 541-73-1 Benzene, 1,3-dichloro-
U072 106-46-7 Benzene, 1,4-dichloro-
U060 72-54-8 Benzene, 1, 1'-(2, 2-dichloroethylidene)bis [4-chloro-
U017 98-87-3 Benzene, (dichloromethyl)-
U223 26471-62-5 Benzene,1,3-diisocyanatomethyl-(R,T)
U239 1330-20-7 Benzene, dimethyl-(I,T)
U201 108-46-3 1,3-Benzenediol

U127 118-74-1 Benzene, hexachloro-
U056 110-82-7 Benzene, hexahydro-(I)
U220 108-88-3 Benzene, methyl-
U105 121-14-2 Benzene, 1-methyl-2,4-dinitro-
U106 606-20-2 Benzene, 2-methyl-1,3-dinitro-
U055 98-82-8 Benzene, (1-methylethyl)-(I)
U169 98-95-3 Benzene, nitro-
U183 608-93-5 Benzene, pentachloro
U185 82-68-8 Benzene, pentachloronitro-
U020 98-09-9 Benzenesulfonic acid chloride (C,R)
U020 98-09-9 Benzenesulfonyl chloride (C,R)
U207 95-94-3 Benzene, 1,2,4,5-tetrachloro-
U061 50-29-3 Benzene, 1, 1'-(2,2,2-trichloro-ethylidene)bis[4-chloro-
U247 72-43-5 Benzene, 1, 1'-(2,2,2-trichloro-ethylidene)bis[4-methoxy-
U023 98-07-7 Benzene, (trichloromethyl)-
U234 99-35-4 Benzene, 1,3,5-trinitro-
U021 92-87-5 Benzidine
U202 81-07-2 1,2-Benzisothiazol-3 (2H)- one, 1,1,-dioxide, and salts 1
U364 22961-82-6 1,3-Benzodioxol-4-ol, 2,2-dimethyl-
U278 22781-23-3 1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U203 94-59-7 1,3-Benzodioxole, 5-(2-propenyl)-
U141 120-58-1 1,3-Benzodioxole, 5-(1-propenyl)-
U090 94-58-6 1,3-Benzodioxole, 5-propyl-
U367 1563-38-8 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U064 189-55-9 Benzo[rst]pentaphene
U248 81-81-2 2H-1-Benzopyran-2-one, 1 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when
present at concentrations of 0.3% or less
U022 50-32-8 Benzo[a]pyrene
U197 106-51-4 p-Benzoquinone
U023 98-07-7 Benzotrichloride (C,R,T)
U085 1464-53-5 2,2'-Bioxirane
U021 92-87-5 (1,1'-Biphenyl)-4,4'-diamine
U073 91-94-1 (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-
U091 119-90-4 (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-
U095 119-93-7 (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-
U225 75-25-2 Bromoform
U030 101-55-3 4-Bromophenyl phenyl ether
U128 87-68-3 1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172 924-16-3 1-Butanamine, N-butyl-N-nitroso-
U031 71-36-3 1-Butanol (I)
U159 78-93-3 2-Butanone (I,T)
U160 1338-23-4 2-Butanone, peroxide (R,T)
U053 4170-30-3 2-Butenal
U074 764-41-0 2-Butene, 1,4-dichloro- (I,T)
U143 303-34-4 2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3- methyl-1-
oxobutoxy]methyl]-2,3,5,7a- tetrahydro-1H-pyrrolizin- 1-yl ester, [1S-[1alpha(Z), 7(2S*,3R*),
7aalpha]]-
U031 71-36-3 n-Butyl alcohol (I)

U136 75-60-5 Cacodylic acid
U032 13765-19-0 Calcium chromate
U372 10605-21-7 Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U271 17804-35-2 Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U280 101-27-9 Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U238 51-79-6 Carbamic acid, ethyl ester
U178 615-53-2 Carbamic acid, methylnitroso-, ethyl ester
U373 122-42-9 Carbamic acid, phenyl-, 1-methylethyl ester
U409 23564-05-8 Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis-, dimethyl ester
U097 79-44-7 Carbamic chloride, dimethyl-
U114 111-54-6 Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters1
U062 2303-16-4 Carbamothioic acid, bis(1-methylethyl)-S-(2,3-dichloro-2-propenyl)ester
U389 2303-17-5 Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U387 52888-80-9 Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U279 63-25-2 Carbaryl
U372 10605-21-7 Carbendazim
U367 1563-38-8 Carbofuran phenol
U215 6533-73-9 Carbonic acid, dithallium (1+) salt
U033 353-50-4 Carbonic difluoride
U156 79-22-1 Carbonochloridic acid, methyl ester (I,T)
U033 353-50-4 Carbon oxyfluoride (R,T)
U211 56-23-5 Carbon tetrachloride
U034 75-87-6 Chloral
U035 305-03-3 Chlorambucil
U036 57-74-9 Chlordane, alpha & gamma isomers
U026 494-03-1 Chlornaphazin
U037 108-90-7 Chlorobenzene
U038 510-15-6 Chlorobenzilate
U039 59-50-7 p-Chloro-m-cresol
U042 110-75-8 2-Chloroethyl vinyl ether
U044 67-66-3 Chloroform
U046 107-30-2 Chloromethyl methyl ether
U047 91-58-7 beta-Chloronaphthalene
U048 95-57-8 o-Chlorophenol
U049 3165-93-3 4-Chloro-o-toluidine, hydrochloride
U032 13765-19-0 Chromic acid H CrO₃, calcium salt 2 4
U050 218-01-9 Chrysene
U051 Creosote
U052 1319-77-3 Cresols (Cresylic acid)
U053 4170-30-3 Crotonaldehyde
U055 98-82-8 Cumene (I)
U246 506-68-3 Cyanogen bromide (CN) Br
U197 106-51-4 2,5-Cyclohexadiene-1,4-dione
U056 110-82-7 Cyclohexane (I)
U129 58-89-9 Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057 108-94-1 Cyclohexanone (I)

U130 77-47-4 1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058 50-18-0 Cyclophosphamide
U240 94-75-7 2,4-D, salts and esters1
U059 20830-81-3 Daunomycin
U060 72-54-8 DDD
U061 50-29-3 DDT
U062 2303-16-4 Diallate
U063 53-70-3 Dibenz[a,h]anthracene
U064 189-55-9 Dibenzo[a,i]pyrene
U066 96-12-8 1,2-Dibromo-3-chloropropane
U069 84-74-2 Dibutyl phthalate
U070 95-50-1 o-Dichlorobenzene
U071 541-73-1 m-Dichlorobenzene
U072 106-46-7 p-Dichlorobenzene
U073 91-94-1 3,3'-Dichlorobenzidine
U074 764-41-0 1,4-Dichloro-2-butene (I,T)
U075 75-71-8 Dichlorodifluoromethane
U078 75-35-4 1,1-Dichloroethylene
U079 156-60-5 1,2-Dichloroethylene
U025 111-44-4 Dichloroethyl ether
U027 108-60-1 Dichloroisopropyl ether
U024 111-91-1 Dichloromethoxy ethane
U081 120-83-2 2,4-Dichlorophenol
U082 87-65-0 2,6-Dichlorophenol
U084 542-75-6 1,3-Dichloropropene
U085 1464-53-5 1,2:3,4-Diepoxybutane (I,T)
U395 5952-26-1 Diethylene glycol, dicarbamate
U108 123-91-1 1,4-Diethyleneoxide
U028 117-81-7 Diethylhexyl phthalate
U086 1615-80-1 N,N'-Diethylhydrazine
U087 3288-58-2 O,O-Diethyl-S-methyl-dithiophosphate
U088 84-66-2 Diethyl phthalate
U089 56-53-1 Diethylstilbestrol
U090 94-58-6 Dihydrosafrole
U091 119-90-4 3,3'-Dimethoxybenzidine
U092 124-40-3 Dimethylamine (I)
U093 60-11-7 p-Dimethylaminoazobenzene
U094 57-97-6 7,12-Dimethylbenz[a]anthracene
U095 119-93-7 3,3'-Dimethylbenzidine
U096 80-15-9 alpha,alpha-Dimethyl-benzylhydroperoxide (R)
U097 79-44-7 Dimethylcarbamoyl chloride
U098 57-14-7 1,1-Dimethylhydrazine
U099 540-73-8 1,2-Dimethylhydrazine
U101 105-67-9 2,4-Dimethylphenol
U102 131-11-3 Dimethyl phthalate
U103 77-78-1 Dimethyl sulfate
U105 121-14-2 2,4-Dinitrotoluene
U106 606-20-2 2,6-Dinitrotoluene

U107 117-84-0 Di-n-octyl phthalate
U108 123-91-1 1,4-Dioxane
U109 122-66-7 1,2-Diphenylhydrazine
U110 142-84-7 Dipropylamine (I)
U111 621-64-7 Di-n-propylnitrosamine
U041 106-89-8 Epichlorohydrin
U001 75-07-0 Ethanal (I)
U404 121-44-8 Ethanamine, N,N-diethyl-
U174 55-18-5 Ethanamine, N-ethyl-N-nitroso-
U155 91-80-5 1,2-Ethanediamine, -N,N-dimethyl-N'-2- pyridinyl-N'-(2-thienylmethyl)-
U067 106-93-4 Ethane, 1,2-dibromo-
U076 75-34-3 Ethane, 1,1-dichloro-
U077 107-06-2 Ethane, 1,2-dichloro-
U131 67-72-1 Ethane, hexachloro-
U024 111-91-1 Ethane, 1,1'-[methylenebis (oxy)]bis[2-chloro-
U117 60-29-7 Ethane, 1,1'-oxybis-(I)
U025 111-44-4 Ethane, 1,1'-oxybis [2-chloro-
U184 76-01-7 Ethane, pentachloro-
U208 630-20-6 Ethane, 1,1,1,2-tetrachloro-
U209 79-34-5 Ethane, 1,1,2,2-tetrachloro-
U218 62-55-5 Ethanethioamide
U226 71-55-6 Ethane, 1,1,1-trichloro-
U227 79-00-5 Ethane, 1,1,2-trichloro-
U394 30558-43-1 Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U410 59669-26-0 Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-,dimethyl ester
U359 110-80-5 Ethanol,2-ethoxy-
U173 1116-54-7 Ethanol,2,2'-(nitrosoimino)bis-
U395 5952-26-1 Ethanol, 2,2'-oxybis-, dicarbamate
U004 98-86-2 Ethanone, 1-phenyl-
U043 75-01-4 Ethene, chloro-
U042 110-75-8 Ethene, (2-chloroethoxy)-
U078 75-35-4 Ethene, 1,1-dichloro-
U079 156-60-5 Ethene, 1,2-dichloro-, (E)-
U210 127-18-4 Ethene, tetrachloro-
U228 79-01-6 Ethene, trichloro-
U112 141-78-6 Ethyl acetate (I)
U113 140-88-5 Ethyl acrylate (I)
U117 60-29-7 Ethyl ether (I)
U238 51-79-6 Ethyl carbamate (urethane)
U114 111-54-6 Ethylenebisdithiocarbamic acid, salts and esters 1
U067 106-93-4 Ethylene dibromide
U077 107-06-2 Ethylene dichloride
U359 110-80-5 Ethylene glycol monoethyl ether
U115 75-21-8 Ethylene oxide (I,T)
U116 96-45-7 Ethylene thiourea
U076 75-34-3 Ethylidene dichloride
U118 97-63-2 Ethyl methacrylate

U119 62-50-0 Ethyl methanesulfonate
U120 206-44-0 Fluoranthene
U122 50-00-0 Formaldehyde
U123 64-18-6 Formic acid (C,T)
U124 110-00-9 Furan (I)
U125 98-01-1 2-Furancarboxaldehyde (I)
U147 108-31-6 2,5-Furandione
U213 109-99-9 Furan, tetrahydro-(I)
U125 98-01-1 Furfural (I)
U124 110-00-9 Furfuran (I)
U206 18883-66-4 Glucopyranose,2-deoxy-2-(3-methyl-3- nitrosoareido)-,D-
U206 18883-66-4 D-Glucose, 2-deoxy-2- [[[methylnitrosoamino)-carbonyl] amino]-
U126 765-34-4 Glycidylaldehyde
U163 70-25-7 Guanidine,N-methyl-N'-nitro-N-nitroso-
U127 118-74-1 Hexachlorobenzene
U128 87-68-3 Hexachlorobutadiene
U130 77-47-4 Hexachlorocyclopentadiene
U131 67-72-1 Hexachloroethane
U132 70-30-4 Hexachlorophene
U243 1888-71-7 Hexachloropropene
U133 302-01-2 Hydrazine (R,T)
U086 1615-80-1 Hydrazine, 1,2-diethyl-
U098 57-14-7 Hydrazine, 1,1-dimethyl-
U099 540-73-8 Hydrazine, 1,2-dimethyl-
U109 122-66-7 Hydrazine, 1,2-diphenyl-
U134 7664-39-3 Hydrofluoric acid (C,T)
U134 7664-39-3 Hydrogen fluoride (C,T)
U135 7783-06-4 Hydrogen sulfide
U135 7783-06-4 Hydrogen Sulfide H S 2
U096 80-15-9 Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U116 96-45-7 2-Imidazolidinethione
U137 193-39-5 Indeno[1,2,3-cd]pyrene
U190 85-44-9 1,3-Isobenzofurandione
U140 78-83-1 Isobutyl alcohol (I,T)
U141 120-58-1 Isosafrole
U142 143-50-0 Kepone
U143 303-34-4 Lasiocarpine
U144 301-04-2 Lead acetate
U146 1335-32-6 Lead,bis(acetato-O) tetrahydroxytri-
U145 7446-27-7 Lead phosphate
U146 1335-32-6 Lead subacetate
U129 58-89-9 Lindane
U163 70-25-7 MNNG
U147 108-31-6 Maleic anhydride
U148 123-33-1 Maleic hydrazide
U149 109-77-3 Malononitrile
U150 148-82-3 Melphalan
U151 7439-97-6 Mercury

U152 126-98-7 Methacrylonitrile (I,T)
U092 124-40-3 Methanamine, N-methyl-(I)
U029 74-83-9 Methane, bromo-
U045 74-87-3 Methane, chloro-(I,T)
U046 107-30-2 Methane, chloromethoxy-
U068 74-95-3 Methane, dibromo-
U080 75-09-2 Methane, dichloro-
U075 75-71-8 Methane, dichlorodifluoro-
U138 74-88-4 Methane, iodo-
U119 62-50-0 Methanesulfonic acid, ethyl ester
U211 56-23-5 Methane, tetrachloro-
U153 74-93-1 Methanethiol (I,T)
U225 75-25-2 Methane, tribromo-
U044 67-66-3 Methane, trichloro-
U121 75-69-4 Methane, trichlorofluoro-
U036 57-74-9 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octa-chloro- 2,3,3a,4,7,7a-hexahydro-
U154 67-56-1 Methanol (I)
U155 91-80-5 Methapyrilene
U142 143-50-0 1,3,4-Metheno-2H-cyclobuta-[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a, 5b,6-decachlorooctahydro-
U247 72-43-5 Methoxychlor
U154 67-56-1 Methyl alcohol (I)
U029 74-83-9 Methyl bromide
U186 504-60-9 1-Methylbutadiene (I)
U045 74-87-3 Methyl chloride (I,T)
U156 79-22-1 Methyl chlorocarbonate (I,T)
U226 71-55-6 Methyl chloroform
U157 56-49-5 3-Methylcholanthrene
U158 101-14-4 4,4'-Methylenebis(2-chloroaniline)
U068 74-95-3 Methylene bromide
U080 75-09-2 Methylene chloride
U159 78-93-3 Methyl ethyl ketone (MEK) (I,T)
U160 1338-23-4 Methyl ethyl ketone peroxide (R,T)
U138 74-88-4 Methyl iodide
U161 108-10-1 Methyl isobutyl ketone (I)
U162 80-62-6 Methyl methacrylate (I,T)
U161 108-10-1 4-Methyl-2-pentanone (I)
U164 56-04-2 Methylthiouracil
U010 50-07-7 Mitomycin C
U059 20830-81-3 5,12-Naphthacenedione, 8-acetyl-10-[(3- amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)-oxy]- 7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U026 494-03-1 2-Naphthalenamine, N,N'-bis (2-chloroethyl)-
U167 134-32-7 1-Naphthalenamine
U168 91-59-8 2-Naphthalenamine
U165 91-20-3 Naphthalene
U047 91-58-7 Naphthalene, 2-chloro-
U166 130-15-4 1,4-Naphthalenedione

U236 72-57-1 2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl-[1,1'-biphenyl]-4,4'-diyl) bis(azo)bis[5-amino-4-hydroxy]-,tetrasodium salt
U166 130-15-4 1,4-Naphthoquinone
U167 134-32-7 alpha-Naphthylamine
U168 91-59-8 beta-Naphthylamine
U217 10102-45-1 Nitric acid, thallium(1+)salt
U169 98-95-3 Nitrobenzene (I,T)
U170 100-02-7 p-Nitrophenol
U171 79-46-9 2-Nitropropane (I,T)
U172 924-16-13 N-Nitrosodi-n-butylamine
U173 1116-54-7 N-Nitrosodiethanolamine
U174 55-18-5 N-Nitrosodiethylamine
U176 759-73-9 N-Nitroso-N-ethylurea
U177 684-93-5 N-Nitroso-N-methylurea
U178 615-53-2 N-Nitroso-N-methylurethane
U179 100-75-4 N-Nitrosopiperidine
U180 930-55-2 N-Nitrosopyrrolidine
U181 99-55-8 5-Nitro-o-toluidine
U193 1120-71-4 1,2-Oxathiolane, 2,2-dioxide
U058 50-18-0 2H-1,3,2-Oxazaphosphorin-2-amine,N,N- bis(2-chloroethyl) tetrahydro-,2-oxide
U115 75-21-8 Oxirane (I,T)
U126 765-34-4 Oxiranecarboxyaldehyde
U041 106-89-8 Oxirane, (chloromethyl)-
U182 123-63-7 Paraldehyde
U183 608-93-5 Pentachlorobenzene
U184 76-01-7 Pentachloroethane
U185 82-68-8 Pentachloronitrobenzene (PCNB)
See F027 87-86-5 Pentachlorophenol
U161 108-10-1 Pentanol, 4-methyl-
U186 504-60-9 1,3-Pentadiene (I)
U187 62-44-2 Phenacetin
U188 108-95-2 Phenol
U048 95-57-8 Phenol, 2-chloro-
U039 59-50-7 Phenol, 4-chloro-3-methyl-
U081 120-83-2 Phenol, 2,4-dichloro-
U082 87-65-0 Phenol, 2,6-dichloro-
U089 56-53-1 Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl) bis-, (E)-
U101 105-67-9 Phenol, 2,4-dimethyl-
U052 1319-77-3 Phenol, methyl-
U132 70-30-4 Phenol, 2,2'-methylenebis[3,4,6- trichloro-
U170 100-02-7 Phenol, 4-nitro-
See F027 87-86-5 Phenol, pentachloro-
See F027 58-90-2 Phenol, 2,3,4,6-tetrachloro-
See F027 95-95-4 Phenol, 2,4,5-trichloro-
See F027 88-06-2 Phenol, 2,4,6-trichloro-
U150 148-82-3 L-Phenylalanine, 4-[bis (2 -chloroethyl)amino]-
U145 7446-27-7 Phosphoric acid, lead(2+)salt(2:3)
U087 3288-58-2 Phosphorodithioic acid, O,O-diethyl,S-methyl ester

U189 1314-80-3 Phosphorus sulfide (R)
U190 85-44-9 Phthalic anhydride
U191 109-06-8 2-Picoline
U179 100-75-4 Piperidine, 1-nitroso-
U192 23950-58-5 Pronamide
U194 107-10-8 1-Propanamine (I,T)
U111 621-64-7 1-Propanamine, N-nitroso- N-propyl-
U110 142-84-7 1-Propanamine, N-propyl-(I)
U066 96-12-8 Propane, 1,2-dibromo-3-chloro-
U083 78-87-5 Propane, 1,2-dichloro-
U149 109-77-3 Propanedinitrile
U171 79-46-9 Propane, 2-nitro-(I,T)
U027 108-60-1 Propane, 2,2'-oxybis[2-chloro-
U193 1120-71-4 1,3-Propane sultone
See F027 93-72-1 Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235 126-72-7 1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140 73-83-1 1-Propanol, 2-methoxy-(I,T)
U002 67-64-1 2-Propanone (I)
U007 79-06-1 2-Propenamide
U084 542-75-6 1-Propene, 1,3-dichloro-
U243 1888-71-7 1-Propene, 1,1,2,3,3,3-hexachloro-
U009 107-13-1 2-Propenenitrile
U152 126-98-7 2-Propenenitrile, 2-methyl-(I,T)
U008 79-10-7 2-Propenoic acid (I)
U113 140-88-5 2-Propenoic acid, ethyl ester (I)
U118 97-63-2 2-Propenoic acid, 2-methyl-, ethyl ester
U162 80-62-6 2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U194 107-10-8 n-Propylamine (I,T)
U083 78-87-5 Propylene dichloride
U148 123-33-1 3,6-Pyridazinedione, 1,2-dihydro-
U196 110-86-1 Pyridine
U191 109-06-8 Pyridine, 2-methyl-
U237 66-75-1 2,4-(1H,3H)-Pyrimidinedione, 5- [bis(2-chloroethyl) amino]-
U164 56-04-24 (1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180 930-55-2 Pyrrolidine, 1-nitroso-
U200 50-55-5 Reserpine
U201 108-46-3 Resorcinol
U202 81-07-2 Saccharin and salts1
U203 94-59-7 Safrole
U204 7783-00-8 Selenious acid
U204 7783-00-8 Selenium dioxide
U205 7488-56-4 Selenium sulfide
U205 7488-56-4 Selenium sulfide SeS (R,T) 2
U015 115-02-6 L-Serine, diazoacetate (ester)
See F027 93-72-1 Silvex(2,4,5-TP)
U206 18883-66-4 Streptozotocin
U103 77-78-1 Sulfuric acid, dimethyl ester
U189 1314-80-3 Sulfur phosphide (R)

See F027 93-76-5 2,4,5-T
U207 95-94-3 1,2,4,5-Tetrachlorobenzene
U208 630-20-6 1,1,1,2-Tetrachloroethane
U209 79-34-5 1,1,2,2,-Tetrachloroethane
U210 127-18-4 Tetrachloroethylene
See F027 58-90-2 2,3,4,6-Tetrachlorophenol
U213 109-99-9 Tetrahydrofuran (I)
U214 563-68-8 Thallium(I) acetate
U215 6533-73-9 Thallium(I) carbonate
U216 7791-12-0 Thallium (I) chloride
U216 7791-12-0 Thallium chloride TlCl
U217 10102-45-1 Thallium (I) nitrate
U218 62-55-5 Thioacetamide
U153 74-93-1 Thiomethanol (I,T)
U244 137-26-8 Thioperoxydicarbonic diamide [(H N)C(S)] S , tetramethyl- 2 2 2
U409 23564-05-8 Thiophanatemethyl
U219 62-56-6 Thiourea
U244 137-26-8 Thiram
U220 108-88-3 Toluene
U221 25376-45-8 Toluenediamine
U223 26471-62-5 Toluene diisocyanate (R,T)
U328 95-53-4 o-Toluidine
U353 106-49-0 p-Toluidine
U222 636-21-5 o-Toluidine hydrochloride
U011 61-82-5 1H-1,2,4-Triazol-3-amine
U227 79-00-5 1,1,2-Trichloroethane
U228 79-01-6 Trichloroethylene
See F027 95-95-4 2,4,5-Trichlorophenol
See F027 88-06-2 2,4,6-Trichlorophenol
U234 99-35-4 1,3,5-Trinitrobenzene (R,T)
U182 123-63-7 1,3,5-Trioxane, 2,4,6-trimethyl-
U121 75-69-4 Trichloromonofluoromethane
U235 126-72-7 Tris(2,3-dibromopropyl) phosphate
U236 72-57-1 Trypan blue
U237 66-75-1 Uracil mustard
U176 759-73-9 Urea, N-ethyl-N-nitroso-
U177 684-93-5 Urea, N-methyl-N-nitroso-
U043 75-01-4 Vinyl chloride
U248 81-81-2 Warfarin, & salts, when present at concentrations of 10% or 1 less
U239 1330-20-7 Xylene (I)
U200 50-55-5 Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta, 16beta, 17alpha, 18beta, 20alpha)-
U407 14324-55-1 Zinc, bis(diethylcarbamoithioato-S,S')-
U249 1314-84-7 Zinc phosphide Zn P , when present at concentrations of 10% 3 2 or less
CAS Number given for parent compound only. 1

G. Constituents that Serve as a Basis for Listing Hazardous Waste. Table 6 lists constituents that serve as a basis for listing hazardous waste.

Table 6. Table of Constituents that Serve as a Basis for Listing Hazardous Waste

EPA Hazardous Waste Number F001

Tetrachloroethylene
methylene chloride
trichloroethylene
1,1,1-trichloroethane
carbon tetrachloride
chlorinated fluorocarbons

EPA Hazardous Waste Number F002

Tetrachloroethylene
methylene chloride
trichloroethylene
1,1,1-trichloroethane
1,1,2-trichloroethane
chlorobenzene
1,1,2-trichloro-1,2,2-trifluoroethane
ortho-dichlorobenzene

trichlorofluoromethane

EPA Hazardous Waste Number F003

N.A.

EPA Hazardous Waste Number F004

Cresols and cresylic acid
nitrobenzene

EPA Hazardous Waste Number F005

Toluene
methyl ethyl ketone
carbon disulfide
isobutanol
pyridine
2-ethoxyethanol
benzene
2-nitropropane

EPA Hazardous Waste Number F006

Cadmium
hexavalent chromium
nickel
cyanide (complexed)

EPA Hazardous Waste Number F007

Cyanide (salts)

EPA Hazardous Waste Number F008

Cyanide (salts)

EPA Hazardous Waste Number F009

Cyanide (salts)

EPA Hazardous Waste Number F010

Cyanide (salts)

EPA Hazardous Waste Number F011

Cyanide (salts)

EPA Hazardous Waste Number F012

Cyanide (complexed)
EPA Hazardous Waste Number F019
Hexavalent chromium
cyanide (complexed)
EPA Hazardous Waste Number F020
Tetra- and pentachlorodibenzo-p-dioxins
tetra and pentachlorodibenzofurans
tri- and tetrachlorophenols and their
chlorophenoxy derivative acids
esters
ethers
amine and other salts
EPA Hazardous Waste Number F021
Penta- and hexachlorodibenzo-p-dioxins
penta- and hexachlorodibenzofurans
pentachlorophenol and its derivatives
EPA Hazardous Waste Number F022
Tetra-, penta-, and hexachlorodibenzo-p-dioxins
tetra-, penta-, and hexachlorodibenzofurans
EPA Hazardous Waste Number F023
Tetra- and pentachlorodibenzo-p-dioxins
tetra- and pentachlorodibenzofurans
tri- and tetrachlorophenols and their
chlorophenoxy derivative acids
ester
ethers
amine and other salts
EPA Hazardous Waste Number F024
Chloromethane
dichloromethane
trichloromethane
carbon tetrachloride
chloroethylene
1,1-dichloroethane
1,2-dichloroethane
trans-1-2-dichloroethylene
1,1-dichloroethylene
1,1,1-trichloroethane
1,1,2-trichloroethane
trichloroethylene
1,1,1,2-tetra-chloroethane
1,1,2,2-tetrachloroethane
tetrachloroethylene
pentachloroethane
hexachloroethane
allyl chloride (3-chloropropene)
dichloropropane
dichloropropene

2-chloro-1,3-butadiene
hexachloro-1,3-butadiene
hexachlorocyclopentadiene
hexachlorocyclohexane
benzene
chlorobenzene
dichlorobenzenes
1,2,4-trichlorobenzene
tetrachlorobenzene
pentachlorobenzene
hexachlorobenzene
toluene
naphthalene
EPA Hazardous Waste Number F025
Chloromethane
Dichloromethane
Trichloromethane
Carbon tetrachloride
Chloroethylene
1,1-Dichloroethane
1,2-Dichloroethane
trans-1,2-Dichloroethylene
1,1-Dichloroethylene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Pentachloroethane
Hexachloroethane
Allyl chloride (3-Chloropropene)
Dichloropropane
Dichloropropene
2-Chloro-1,3-butadiene
Hexachloro-1,3-butadiene
Hexachlorocyclopentadiene
Benzene
Chlorobenzene
Dichlorobenzene
1,2,4-Trichlorobenzene
Tetrachlorobenzene
Pentachlorobenzene
Hexachlorobenzene
Toluene
Naphthalene
EPA Hazardous Waste Number F026
Tetra-, penta-, and hexachlorodibenzo-p-dioxins

tetra-, penta-, and hexachlorodibenzofurans

EPA Hazardous Waste Number F027

Tetra-, penta-, and hexachlorodibenzo-p-dioxins

tetra-, penta-, and hexachlorodibenzofurans

tri-, tetra-, and pentachlorophenols and their
chlorophenoxy derivative acids

esters

ethers

amine and other salts

EPA Hazardous Waste Number F028

Tetra-, penta-, and hexachlorodibenzo-p-dioxins, tetra-,
penta-, and hexachlorodibenzofurans, tri-, tetra-, and
pentachlorophenols and their chlorophenoxy derivative
acids, esters, ethers, amine and other salts

EPA Hazardous Waste Number F032

Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene,
indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic,
chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins,
tetra -, penta-, hexa-, heptachlorodibenzofurans

EPA Hazardous Waste Number F034

Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene,
dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene,
arsenic, chromium

EPA Hazardous Waste Number F035

Arsenic, chromium, lead

EPA Hazardous Waste Number F037

Benzene, benzo(a)pyrene, chrysene, lead, chromium

EPA Hazardous Waste Number F038

Benzene, benzo(a)pyrene chrysene, lead, chromium

EPA Hazardous Waste Number F039

All constituents for which treatment standards are
specified for multi-source leachate (wastewaters and
nonwastewaters) under LAC 33:V.2247. Table 2

EPA Hazardous Waste Number K001

Pentachlorophenol

phenol

2-chlorophenol

p-chloro-, -cresol

2,4-dimethylphenyl

2,4-dinitrophenol

trichlorophenols

tetrachlorophenols

2,4-dinitrophenol

creosote

chrysene

naphthalene

fluoranthene

benzo(b)fluoranthene

benzo(a)pyrene
indeno(1,2,3-cd)pyrene
benz(a)anthracene
dibenz(a)anthracene
acenaphthalene
EPA Hazardous Waste Number K002
Hexavalent chromium
lead
EPA Hazardous Waste Number K003
Hexavalent chromium
lead
EPA Hazardous Waste Number K004
Hexavalent chromium
EPA Hazardous Waste Number K005
Hexavalent chromium
lead
EPA Hazardous Waste Number K006
Hexavalent chromium
EPA Hazardous Waste Number K007
Cyanide (complexed)
hexavalent chromium
EPA Hazardous Waste Number K008
Hexavalent chromium
EPA Hazardous Waste Number K009
Chloroform, formaldehyde,
methylene chloride,
methyl chloride
paraldehyde, formic acid.
EPA Hazardous Waste Number K010
Chloroform, formaldehyde,
methylene chloride,
methyl chloride, paraldehyde,
formic acid, chloroacetaldehyde
EPA Hazardous Waste Number K011
Acrylonitrile, acetonitrile, hydrocyanic acid
EPA Hazardous Waste Number K013
Hydrocyanic acid, acrylonitrile, acetonitrile
EPA Hazardous Waste Number K014
Acetonitrile, acrylamide
EPA Hazardous Waste Number K015
Benzyl chloride, chlorobenzene,
toluene, benzotrichloride
EPA Hazardous Waste Number K016
Hexachlorobenzene, hexachlorobutadiene,
carbon tetrachloride, hexachloroethane,
perchloroethylene
EPA Hazardous Waste Number K017
Epichlorohydrin, chloroethers [bis(chloromethyl)]

ether and bis (2-Chloroethyl) ethers],
trichloropropane,
dichloropropanols
EPA Hazardous Waste Number K018
1,2-dichloroethane, trichloroethylene, hexachlorobutadiene,
hexachlorobenzene
EPA Hazardous Waste Number K019
Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-
trichloroethane, tetrachloroethanes (1,1,2,2-
tetrachloroethane and 1,1,1,2-tetrachloroethane),
trichloroethylene, tetrachloroethylene, carbon
tetrachloride, chloroform, vinyl chloride, vinylidene
chloride
EPA Hazardous Waste Number K020
Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-
trichloroethane, tetrachloroethanes (1,1,2,2-
tetrachloroethane and 1,1,1,2-tetrachloroethane),
trichloroethylene, tetrachloroethylene, carbon
tetrachloride, chloroform, vinyl chloride, vinylidene
chloride
EPA Hazardous Waste Number K021
Antimony, carbon tetrachloride, chloroform
EPA Hazardous Waste Number K022
Phenol, tars (polycyclic aromatic hydrocarbons)
EPA Hazardous Waste Number K023
Phthalic anhydride, maleic anhydride
EPA Hazardous Waste Number K024
Phthalic anhydride, 1,4-naphthoquinone
EPA Hazardous Waste Number K025
Meta-dinitrobenzene, 2,4-dinitrotoluene
EPA Hazardous Waste Number K026
Paraldehyde, pyridines, 2-picoline
EPA Hazardous Waste Number K027
Toluene diisocyanate, toluene-2,4-diamine
EPA Hazardous Waste Number K028
1,1,1-trichloroethane, vinyl chloride
EPA Hazardous Waste Number K029
1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride,
vinylidene chloride, chloroform
EPA Hazardous Waste Number K030
Hexachlorobenzene, Hexachlorobutadiene, hexachloroethane,
1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane,
ethylene dichloride
EPA Hazardous Waste Number K031
Arsenic
EPA Hazardous Waste Number K032
Hexachlorocyclopentadiene
EPA Hazardous Waste Number K033

Hexachlorocyclopentadiene
EPA Hazardous Waste Number K034
Hexachlorocyclopentadiene
EPA Hazardous Waste Number K035
Creosote, chrysene, naphthalene, fluoranthene benzo(b)
fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene,
benzo(a)anthracene, dibenzo(a)anthracene,
acenaphthalene
EPA Hazardous Waste Number K036
Toluene, phosphorodithioic and phosphorothioic acid esters
EPA Hazardous Waste Number K037
Toluene, phosphorodithioic and phosphorothioic acid esters
EPA Hazardous Waste Number K038
Phorate, formaldehyde, phosphorodithioic and
phosphorothioic
acid esters
EPA Hazardous Waste Number K039
Phosphorodithioic and phosphorothioic acid esters
EPA Hazardous Waste Number K040
Phorate, formaldehyde, phosphorodithioic and
phosphorothioic
acid esters
EPA Hazardous Waste Number K041
Toxaphene
EPA Hazardous Waste Number K042
Hexachlorobenzene, ortho-dichlorobenzene
EPA Hazardous Waste Number K043
2,4-dichlorophenol, 2,6-dichlorophenol,
2,4,6-trichlorophenol
EPA Hazardous Waste Number K044
NA
EPA Hazardous Waste Number K045
NA
EPA Hazardous Waste Number K046
Lead
EPA Hazardous Waste Number K047
NA
EPA Hazardous Waste Number K048
Hexavalent chromium, lead
EPA Hazardous Waste Number K049
Hexavalent chromium, lead
EPA Hazardous Waste Number K050
Hexavalent chromium
EPA Hazardous Waste Number K051
Hexavalent chromium, lead
EPA Hazardous Waste Number K052
Lead
EPA Hazardous Waste Number K060

Cyanide, naphthalene, phenolic compounds, arsenic
EPA Hazardous Waste Number K061
Hexavalent chromium, lead, cadmium
EPA Hazardous Waste Number K062
Hexavalent chromium, lead
EPA Hazardous Waste Number K064
Lead, cadmium
EPA Hazardous Waste Number K065
Do
EPA Hazardous Waste Number K066
Do
EPA Hazardous Waste Number K069
Hexavalent chromium, lead, cadmium
EPA Hazardous Waste Number K071
Mercury
EPA Hazardous Waste Number K073
Chloroform, carbon tetrachloride, hexachloroethane,
trichloroethane, tetrachloroethylene, dichloroethylene,
1,1,2,2-tetrachloroethane
EPA Hazardous Waste Number K083
Aniline, diphenylamine, nitrobenzene, phenylenediamine
EPA Hazardous Waste Number K084
Arsenic
EPA Hazardous Waste Number K085
Benzene, dichlorobenzenes, trichlorobenzenes,
tetrachlorobenzenes, pentachlorobenzene,
hexachlorobenzene,
benzyl chloride
EPA Hazardous Waste Number K086
Lead, hexavalent chromium
EPA Hazardous Waste Number K087
Phenol, naphthalene
EPA Hazardous Waste Number K088
Cyanide (complexes)
EPA Hazardous Waste Number K090
Chromium
EPA Hazardous Waste Number K091
Do
EPA Hazardous Waste Number K093
Phthalic anhydride, maleic anhydride
EPA Hazardous Waste Number K094
Phthalic anhydride
EPA Hazardous Waste Number K095
1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-
tetrachloroethane
EPA Hazardous Waste Number K096
1,2-dichloroethane, 1,1,1-trichloroethane,
1,1,2-trichloroethane

EPA Hazardous Waste Number K097
Chlordane, heptachlor
EPA Hazardous Waste Number K098
Toxaphene
EPA Hazardous Waste Number K099
2,4-dichlorophenol, 2,4,6-trichlorophenol
EPA Hazardous Waste Number K100
Hexavalent chromium, lead, cadmium
EPA Hazardous Waste Number K101
Arsenic
EPA Hazardous Waste Number K102
Arsenic
EPA Hazardous Waste Number K103
Aniline, nitrobenzene, phenylenediamine
EPA Hazardous Waste Number K104
Aniline, benzene, diphenylamine, nitrobenzene,
phenylenediamine
EPA Hazardous Waste Number K105
Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-
trichlorophenol
EPA Hazardous Waste Number K106
Mercury
EPA Hazardous Waste Number K107
1,1-Dimethylhydrazine (UDMH)
EPA Hazardous Waste Number K108
1,1-Dimethylhydrazine (UDMH)
EPA Hazardous Waste Number K109
1,1-Dimethylhydrazine (UDMH)
EPA Hazardous Waste Number K110
1,1-Dimethylhydrazine (UDMH)
EPA Hazardous Waste Number K111
2,4-Dinitrotoluene
EPA Hazardous Waste Number K112
2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
EPA Hazardous Waste Number K113
2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
EPA Hazardous Waste Number K114
2,4-Toluenediamine, o-toluidine, p-toluidine
EPA Hazardous Waste Number K115
2,4-Toluenediamine
EPA Hazardous Waste Number K116
Carbon tetrachloride, tetrachloroethylene, chloroform,
phosgene
EPA Hazardous Waste Number K117
Ethylene dibromide
EPA Hazardous Waste Number K118
Ethylene dibromide
EPA Hazardous Waste Number K123

Ethylene thiourea
EPA Hazardous Waste Number K124
Ethylene thiourea
EPA Hazardous Waste Number K125
Ethylene thiourea
EPA Hazardous Waste Number K126
Ethylene thiourea
EPA Hazardous Waste Number K131
Dimethyl sulfate, methyl bromide
EPA Hazardous Waste Number K132
Methyl Bromide
EPA Hazardous Waste Number K136
Ethylene dibromide
EPA Hazardous Waste Number K141
Benzene
benz(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
dibenz(a,h)anthracene
indeno(1,2,3-cd)pyrene
EPA Hazardous Waste Number K142
Benzene
benz(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
dibenz(a,h)anthracene
indeno(1,2,3-cd)pyrene
EPA Hazardous Waste Number K143
Benzene
benz(a)anthracene
benzo(b)fluoranthene
benzo(k)fluoranthene
EPA Hazardous Waste Number K144
Benzene
benz(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
dibenz(a,h)anthracene
EPA Hazardous Waste Number K145
Benzene
benz(a)anthracene
benzo(a)pyrene
dibenz(a,h)anthracene
naphthalene
EPA Hazardous Waste Number K147

Benzene
benz(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
dibenz(a,h)anthracene
indeno(1,2,3-cd)pyrene
EPA Hazardous Waste Number K148
Benz(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
dibenz(a,h)anthracene
indeno(1,2,3-cd)pyrene
EPA Hazardous Waste Number K149
Benzotrichloride
benzyl chloride
chloroform
chloromethane
chlorobenzene
1,4-dichlorobenzene
hexachlorobenzene
pentachlorobenzene
1,2,4,5-tetrachlorobenzene
toluene
EPA Hazardous Waste Number K150
Carbon tetrachloride
chloroform
chloromethane
1,4-dichlorobenzene
hexachlorobenzene
pentachlorobenzene
1,2,4,5-tetrachlorobenzene
1,1,2,2-tetrachloroethane
tetrachloroethylene
1,2,4-trichlorobenzene
EPA Hazardous Waste Number K151
Benzene
carbon tetrachloride
chloroform
hexachlorobenzene
pentachlorobenzene
toluene
1,2,4,5-tetrachlorobenzene
tetrachloroethylene
EPA Hazardous Waste Number K156
benomyl
carbaryl

carbendazim
carbofuran
carbosulfan
formaldehyde
methylene chloride
triethylamine
EPA Hazardous Waste Number K157
Carbon tetrachloride
formaldehyde
methyl chloride
methylene chloride
pyridine
triethylamine
EPA Hazardous Waste Number K158
benomyl
carbendazim
carbofuran
carbosulfan
chloroform
methylene chloride
EPA Hazardous Waste Number K159
benzene
butylate
EPTC
molinate
pebulate
vernolate
EPA Hazardous Waste Number K161
antimony
arsenic
metam-sodium
ziram

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 11:1139 (December 1985), LR 12:320 (May 1986), LR 13:84 (February 1987), LR 13:433 (August 1987), LR 14:426 (July 1988), LR 14:790 (November 1988), LR 15:182 (March 1989), LR 16:47 (January 1990), LR 16:220 (March 1990), LR 16:614 (July 1990), LR 16:1057 (December 1990), LR 17:369 (April 1991), LR 17:478 (May 1991), LR 17:658 (July 1991), LR 18:723 (July 1992), LR 18:1256 (November 1992), LR 18:1375 (December 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:829 (September 1996), LR 22:840 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1522 (November 1997), LR 24:321 (February 1998), LR 24:686 (April 1998), LR 24:1754 (September 1998).

Response: Cytec acknowledges the above citation.

§4903. Category II Hazardous Wastes

- A. Category II hazardous wastes are wastes designated as hazardous based on classical analytical procedures (see "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, for guidance on the procedures). There are four hazardous waste categories for wastes not otherwise characterized: ignitability, corrosivity, reactivity, and toxicity. LAC 33:V.Subpart 1 applies to those materials that exhibit the characteristics of ignitability, corrosivity, reactivity, and/or toxicity.
- B. Ignitability. A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number D001. A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:
1. It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has flash point less than 60EC (140EF), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80, as incorporated by reference at LAC 33:V.110, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78, as incorporated by reference at LAC 33:V.110, or as determined by an equivalent test method approved by the administrative authority under procedures set forth in LAC 33:V.105.H and I.
 2. It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.
 3. It is an ignitable compressed gas as defined in LDPS Regulation LAC 33:V.Subpart 2.Chapter 101 and as determined by the test methods described in that regulation or equivalent test methods LAC 33:V.105.I.
 4. It is an oxidizer as defined in LDPS Regulations, LAC 33:V.Subpart 2.Chapter 101.
- C. Corrosivity. A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number D002. A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:
1. It is aqueous and has a pH less than or equal to two or greater than or equal to 12.5, as determined by a pH meter using Method 9040 described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110.
 2. It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55EC (130EF) as determined by the test method specified in National Association of Corrosion Engineers (NACE) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid

Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110.

D. **Reactivity.** A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number D003. A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

1. It is normally unstable and readily undergoes violent change without detonating.
2. It reacts violently with water.
3. It forms potentially explosive mixtures with water.
4. When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
5. It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2.0 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
6. It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
7. It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
8. It is a forbidden explosive as defined in LDPS Regulation LAC 33:V.Subpart 2.Chapter 101, or a Class A explosive as defined in LDPS Regulation LAC 33:V.Subpart 2.Chapter 101 or a Class B explosive as defined in LDPS Regulation LAC 33:V.Subpart 2.Chapter 101.

E. **Toxicity Characteristic**

1. A solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, Method 1311 described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, the extract from a representative sample of the waste contains any of the contaminants listed in Subsection E.2.Table 5 of this Section at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purposes of this Section.
2. A solid waste that exhibits the characteristic of toxicity, but is not listed as a hazardous waste in LAC 33:V.4901, has the Hazardous Waste Number specified in Table 5 that corresponds to the toxic contaminant causing it to be hazardous.

**Table 5. Maximum Concentrations of Contaminants for the Toxicity Characteristic EPA HW
Regulatory Level No. Contaminant CAS NO. (mg/L) 1 2**

D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	200.0 4
D024	m-Cresol	108-39-4	200.0 4
D025	p-Cresol	106-44-5	200.0 4
D026	Cresol	-----	200.0 4
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichlorethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	0.13 3
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13 3
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0 3
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2 4

Hazardous Waste Number 1

Chemical Abstracts Service Number 2

Quantitation limit is greater than the calculated regulatory level. The quantitation 3
limit therefore becomes the regulatory level.

If o-, m- and p-Cresol concentrations cannot be differentiated, the total cresol 4
(D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

- F. A hazardous waste that is listed in LAC 33:V.4901 and/or is identified by one or more of the characteristics in this Section is assigned every EPA Hazardous Waste Number that is applicable as set forth in LAC 33:V.Chapter 49. These waste code numbers must be used in complying with all applicable notification, record keeping, and reporting requirements.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:1057 (December 1990), LR 17:369 (April 1991), LR 18:723 (July 1992), LR 18:1256 (November 1992), LR 22:829 (September 1996).

Response: Cytex acknowledges the above citation.

Editor's Note: The Text in 4905 has been moved to LAC 33:V.109.Hazardous Waste.2.d.

§4905. Repealed

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 14:791 (November 1988), LR 15:182 (March 1989), LR 18:723 (July 1992), amended by Office of Waste Services, Hazardous Waste Division, LR 24:325 (February 1998), repealed by the Office of Waste Services, Hazardous Waste Division, LR 24:1110 (June 1998).

§4907. Criteria for Listing Hazardous Waste

- A. The administrative authority shall list a solid waste as a hazardous waste upon determining that the solid waste meets one of the following criteria:
1. It exhibits any of the characteristics of hazardous waste identified in LAC 33:V.4903.
 2. It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute or Acutely Hazardous Waste.)
 3. It contains any of the toxic constituents listed in LAC 33:V.3105.Table 1, and after considering the following factors, the administrative authority concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed:

- a. the nature of the toxicity presented by the constituent;
- b. the concentration of the constituent in the waste;
- c. the potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in LAC 33:V.4907.A.3.g;
- d. the persistence of the constituent or any toxic degradation product of the constituent;
- e. the potential for the constituent or any toxic degradation product of the constituent to degrade into nonharmful constituents and the rate of degradation;
- f. the degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems;
- g. the plausible types of improper management to which the waste could be subjected;
- h. the quantities of the waste generated at individual generation sites or on a regional or national basis;
- i. the nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent;
- j. action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent; and
- k. such other factors as may be appropriate.

Substances will be listed in LAC 33:V.3105.Table 1 only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic, or teratogenic effects on humans or other life forms. (Wastes listed in accordance with these criteria will be designated "Toxic" wastes.)

- B. The administrative authority may list classes or types of solid waste as hazardous waste if he or she has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in LAC 33:V.109.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:478 (May 1991).

Response: Cytec acknowledges the above citation.

Appendix A-Chemical Analysis Test Methods

Note: Appropriate analytical procedures to determine whether a sample contains a given toxic constituent are specified in Chapter Two, "Choosing the Correct Procedure," found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110. Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in SW-846, for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

Response: Cytec acknowledges the above citation.

Appendix B-Method 1311—Toxicity Characteristic Leaching Procedure (TCLP)

Note: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110.

Response: Cytec acknowledges the above citation.

Appendix C-Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (Method 1310)

Note: The EP (Method 1310) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in LAC 33:V.110.

Response: Cytec acknowledges the above citation.

Appendix D - Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the department to be representative of the waste.

Extremely viscous liquid-ASTM Standard D140-70; Crushed or powdered material-ASTM Standard D346-75; Soil or rock-like material-ASTM Standard D420-69; Soil-like material-ASTM Standard D1452-65; Fly Ash-like material-ASTM Standard D2234-76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]; Containerized liquid wastes-"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair St., Cincinnati, Ohio 45268] Liquid waste in pits, ponds, lagoons, and similar reservoirs "Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods." This manual also contains additional information on application of these protocols.

ENDNOTE: These methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 600/2-80-018, January 1980.

Response: Cytec acknowledges the above citation.

Appendix E - Wastes Excluded Under LAC 33:V.105.M

Table E.1 - Wastes Excluded Facility Address Waste Description

Marathon Oil Co. Garyville, LA Residual solids generated from the thermal desorption treatment of the following wastes: EPA Hazardous Waste No. K048, dissolved air flotation (DAF) float; K049, slop oil emulsion solids; K050, heat exchanger bundle cleaning sludge; K051, American Petroleum Institute (API) separator sludge; F037, primary oil/water/solids

separation sludge; and F038, secondary emulsified oil/water/solids separation sludge. The constituents of concern for K048-K051 wastes are listed as hexavalent chromium and lead (see LAC 33:V. 4901). The constituents of concern for F037 and F038 wastes are listed as hexavalent chromium, lead, benzene, benzo(a)pyrene, and chrysene (See LAC 33:V.4901). Marathon must implement a testing program that meets the following conditions for the exclusion to be valid:

(1) - Testing: Sample collection and analyzes, including quality control (QC) procedures, must be performed according to methodologies described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication Number SW-846, as incorporated by reference in LAC 33:V.110. If the department judges the desorption process to be effective under the operating conditions used during the initial verification testing, Marathon may replace the testing required in condition (1)(A) with the testing required in (1)(B). Marathon must continue to test as specified in condition (1)(A) until and unless notified by the department in writing that testing in condition (1)(A) may be replaced by condition (1)(B), or that testing requirements may be reduced or terminated as described in conditions (1)(C) and (1)(D) to the extent directed by the department.

(1)(A) - Initial Verification Testing: During at least the first four weekly operating periods of full-scale operation of the thermal desorption unit, Marathon must monitor the operating conditions of the thermal desorption unit to maintain a minimum residual solids temperature throughout the high temperature unit of 870 ° F. The residual solids must be analyzed as weekly composites. The weekly composites must be composed of a minimum of two representative grab samples from each operating day during each weekly period of operation. The samples must be analyzed for the constituents listed in condition (3) prior to disposal of the residual solids. Marathon must report the operational and analytical test data, including quality control information, obtained during this initial period, no later than 90 days after initiating full-scale processing.

(1)(B) - Subsequent Verification Testing: Following notification of approval by the department, Marathon may substitute the following testing conditions for those in condition (1)(A). Marathon must continue to monitor operating conditions and analyze samples representative of each month of operation. The samples must be composed of eight representative samples from randomly chosen operating days during the four-week period of operation of each month. These monthly representative composite samples must be analyzed for the constituents listed in condition (3) prior to the disposal of the residual solids. Marathon may, at its discretion, analyze composite samples gathered more frequently to demonstrate that smaller batches of waste are nonhazardous.

(1)(C) - Termination of Monthly Organic Testing: Marathon must continue to monitor unit operating conditions and perform testing as required under condition (1)(B), for the constituents listed in condition (3)(B), until the analyzes submitted under condition (1)(B) show a minimum of three consecutive monthly representative samples with levels of constituents significantly below delisting levels listed in condition (3)(B). Following notification of approval by the department, Marathon may terminate monthly testing for the organic constituents found in condition (3)(B). Following termination of monthly testing for organic constituents, Marathon must test representative composite sample, composited over a one-week time period, for all constituents listed in condition (3)(B) on a

quarterly basis. If delisting levels for any organic constituents listed condition (3)(B) are exceeded in the quarterly sample, Marathon must reinstitute testing as required in condition (1)(B).

(1)(D) - Termination of Monthly Inorganic Testing: Marathon must continue to monitor unit operating conditions and perform testing as required under condition (1)(B), for the constituents listed in condition (3)(A), until the analyzes submitted under condition (1)(B) show a minimum of three consecutive monthly representative samples with levels of constituents significantly below delisting levels listed in condition (3)(A). Following notification of approval by the department, Marathon may terminate monthly testing for the inorganic constituents found in condition (3)(A). Following termination of monthly testing for inorganic constituents, Marathon must test a representative composite sample, composited over a one-week time period, for all constituents listed in condition (3)(A) on a quarterly basis. If delisting levels for any inorganic constituents listed in condition (3)(A) are exceeded in the quarterly sample, Marathon must reinstitute testing as required in condition (1)(B).

(2) - Waste Holding and Handling: Marathon must store as hazardous wastes all residual solids generated until each batch has completed verification testing, as specified in conditions (1)(A) - (1)(D), and has satisfied the delisting criteria, as specified in condition (3). If the levels of constituents in the samples of residual solids are below all of the applicable levels set forth in condition (3), then the residual solids thereby become nonhazardous solid wastes and may be managed and disposed of in accordance with all applicable solid waste regulations. If constituent levels in any weekly composite or other representative sample equal or exceed any of the delisting levels set in condition (3), the residual solids generated during the corresponding period must be retreated to meet the delisting levels or managed and disposed of in accordance with subtitle C of RCRA.

(3) - Delisting Levels: The following delisting levels have been determined safe by taking into account health-based criteria and limits of detection. Concentrations in conditions (3)(A) and (3)(B) must be measured in the extract from the samples by the method specified in LAC 33:V. 4903.E. Concentrations in the extract must be less than the following levels (all units are milligrams per liter):

(3)(A) - Inorganic Constituents: Antimony - 0.22; Arsenic - 0.40; Barium - 72; Beryllium - 0.14; Cadmium - 0.18; Chromium - 3.6; Lead - 0.54; Mercury - .072; Nickel - 3.6; Selenium - 1.8; Silver - 7.2; Vanadium - 7.2.

(3)(B) - Organic Constituents: Acenaphthene - 72; Benzene - 0.18; Benzo(a)anthracene - 0.050; Benzo(a)pyrene - 0.050; Benzo(b)fluoranthrene - 0.050; Bis(2-ethylhexyl)phthalate - 0.22; Chrysene - 0.05; Ethylbenzene - 25; Fluoranthrene - 72; Fluorene - 72; Naphthalene - 36; Pyrene - 72; Toluene - 36.

(4) - Changes in Operating Conditions: After completing the initial verification test period in condition (1)(A), if Marathon significantly changes the operating conditions specified in the petition, Marathon must notify the department in writing. Following receipt of written approval by the department, Marathon must reinstitute the testing required in condition (1)(A) for a minimum of four weekly operating periods. Marathon must report unit operating conditions and test data required by condition (1)(A), including quality control data, obtained during this period no later than 60 days after the changes take place. Following written notification by the department, Marathon may replace testing condition (1)(A) with (1)(B), or reduce or terminate testing requirements

as described in conditions (1)(C) and (1)(D) to the extent directed by the department. Marathon must fulfill all other requirements in condition (1).

(4)(A) - Processing Equipment: Marathon may elect to change thermal desorption processing equipment based on operational performance and economic considerations. In the event that Marathon changes operating equipment, i.e., generic thermal desorption units, Marathon must reinstitute processing and initiate testing

required in condition (1)(A) for a minimum of four weekly operating periods. Marathon must report unit operating conditions and test data required in condition (1)(A), including quality control data, obtained during this period no later than 60 days after the changes take place. Following written notification by the department, Marathon may replace testing condition (1)(A) with (1)(B), or reduce or terminate testing requirements as described in conditions (1)(C) and (1)(D) to the extent directed by the department. Marathon must fulfill all other requirements in condition (1).

(4)(B) - Batch Processing: Marathon may periodically elect to change operating conditions to accommodate batch processing of single-event waste generations. In the event that Marathon initiates batch processing and changes the operating conditions established under condition (1), Marathon must reinstitute the testing required in condition (1)(A) during such batch processing events and monitor unit operating conditions and perform testing required by condition (1)(A), as appropriate. Following the completion of batch processing operations, Marathon must return to the operating conditions applicable prior to initiation of the batch processing and may return to the testing conditions that were applicable prior to the initiation of the batch processing activities.

(5) - Data Submittal: Marathon must notify the department in writing at least two weeks prior to initiating condition (1)(A). The data obtained during condition (1)(A) must be submitted to the Assistant Secretary of the Office of Waste Services, LDEQ, 7290 Bluebonnet Road, Baton Rouge, LA 70810, within the specified 90 days. Records of operating conditions and analytical data from condition (1) must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by the department and made available for inspection. Failure to submit the required data within the specified time period or failure to maintain the required records on-site for the specified time will be considered by the department, at its discretion, sufficient basis to revoke the exclusion. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In the event that any of this information is determined by the department, in its sole discretion, to be false, inaccurate, or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had been in effect."

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality LR 20:1000 (September 1994), amended by the Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:944 (September 1995), LR 22:830 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:959 (August 1997).

Response: Cytec acknowledges the above citation. Appendix E not applicable to us at present.

Chapter 51 Fee Schedules

As specified in LAC 33:V.517, the Part II Information Requirements (the formal permit application) should address compliance with each of the sections of LAC 33:V Chapters 15-37 and 41.

Information on Chapters 7, 9, 11, 13, 38, 39, 40, 43, 49, and 51 is being included at the request of the Administrative Authority.

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality— Hazardous Waste

Chapter 51. Fee Schedules

§5101. Applicability

The regulations in this Chapter apply to generators of hazardous waste as well as treaters, storers, and disposers of hazardous waste except as provided in LAC 33:V.1101 and 1501.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 18:724 (July 1992).

Response: Cytec acknowledges the above citation.

§5103. Scope and Purpose

It is the purpose of these regulations to establish a fee system for funding the monitoring, investigation, and other activities required to be conducted for the maintenance of a safe and healthful environment by the Department of Environmental Quality in accordance with the Louisiana Environmental Quality Act (R.S. 30:2014 et seq.). Fees are required for all permits, licenses, registrations, and variances authorized by the Act.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 18:724 (July 1992).

Response: Cytec acknowledges the above citation.

§5105. Authority

These regulations provide fees as required by R.S. 30:2014.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986).

Response: Cytec acknowledges the above citation.

§5107. Definitions

(See LAC 33:V.109)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986).

Response: Cytec acknowledges the above citation.

§5109. Application Fees

Treaters, Storers, and/or Disposers.

- A. A one-time application fee is charged to cover application, evaluation, and other related program costs.
- B. Each application thereto for which a fee is prescribed shall be accompanied by a remittance in the full amount of the fee. No application or amendments thereto shall be accepted or processed prior to payment of the full amount specified unless approved by the administrative authority. Major amendments of applications for operating permits, closure/post-closure permits, and modifications of permits may be considered as separate applications for purposes of calculating fees.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 16:684 (August 1990), LR 18:724 (July 1992).

Response: Cytec acknowledges the above citation. Cytec has submitted the hazardous waste permit application fee in full.

§5111. Calculation of Application Fees

- A. The applicant is required to calculate his appropriate application fee and Research and Development Fee according to the schedule included in the permit application form. Payment of this fee must be attached to the application.
- B. Application Fee Schedule:
Item Fee
Site analysis - per acre site size \$ 250 1
Process and plan analysis \$ 1,000
Facility analysis - per facility \$ 500 2
Management/financial analysis \$ 1,000
Note: Fee equals total of the four items.
Up to 100 acres, no additional fee thereafter. 1
Incinerator, land farm, treatment pond, etc., each counted as a facility. 2
- C. Initial Research and Development Fee Schedule
Application Fee x 0.25 = Initial Research and Development Fee

D. (Fee per site + fee per facility + fee based on volume) x 0.30 = Administrative Cost Fee

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:318 (May 1986), LR 12:676 (October 1986), LR 13:433 (August 1987), LR 18:724 (July 1992).

Response: Cytex acknowledges the above citation. A copy of the LDEQ invoice showing how the application fee was calculated is included in Attachment C.

§5113. Provision for Collection of Additional Fees Should Application Fees Paid be Less Than Program Costs

Operators who paid an application fee of \$15,000 will be assessed an additional fee equaling the deficit, apportioned equally, provided that no operator pays more than the calculated fee of LAC 33:V.5111.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 14:621 (September 1988).

Response: Cytex acknowledges the above citation.

§5115. Provision of Funds Collected in Excess of Program Costs

Excess funds over program cost generated by this fee shall be credited to the following year's budget.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 14:621 (September 1988).

Response: Cytex acknowledges the above citation.

§5117. Annual Monitoring and Maintenance Fees - Treaters, Storers, and/or Disposers

All annual fees provided by this Chapter shall be paid within 30 days from receipt of billing.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 13:433 (August 1987), LR 14:621 (September 1988), LR 16:684 (August 1990).

Response: Cytec acknowledges the above citation.

§5119. Calculation of Annual Maintenance Fees

Formula to apportion fees:

Annual Maintenance Fee = fee per site + fee per facility + fee based on volume + annual research and development fee + administrative cost fee + land disposal prohibitions fee + groundwater protection annual fee + incineration inspection and monitoring fee + boiler/industrial furnace inspection and monitoring fee + annual landfill inspection and monitoring fee + annual land treatment unsaturated zone monitoring inspection fee.

- A. **Fee Per Site:**
Off-site Disposer (Commercial) \$79,800
Reclaimer (compensated for waste removed) \$35,000
Reclaimer (uncompensated for waste removed or pays for waste removed) \$25,000
Off-site Disposer (Non-commercial) \$20,000
On-site Disposer \$10,000
[Note: The higher fee for off-site disposal is due to the cost of the manifest system and emergency response to transport spills (neither cost is applicable to on-site disposers).]
- B. **Fee Per Hazardous Waste Facility Type:**
Unit Type Fee
STORAGE
Container/Tank/Waste Pile/etc. \$ 3,273
TREATMENT
Incinerator/Boiler/Industrial Furnace/Filtration
Unit/etc. \$ 5,270
DISPOSAL
Landfill/Miscellaneous Unit/etc. \$ 8,270
- C. **Fee Based on Volume**
Less than 1,000 tons \$ 1,952
Less than 10,000 tons \$ 4,904
Less than 100,000 tons \$ 7,856
Less than 1,000,000 tons \$ 10,808
More than 1,000,000 tons \$ 13,760
- D. **Annual Research and Development Fee**
(Fee per site + fee per facility + fee based on volume) x 0.25 = Annual Research and Development Fee
- E. **Administrative Cost Fee**
(Fee per site + fee per facility + fee based on volume) x 0.30 = Administrative Cost Fee
- F. **Land Disposal Prohibitions Fee.** Treatment, processing (including use, reuse, recycling), and/or disposal facility annual fee (not on storage facilities). This fee applies to facilities handling wastes subject to the land disposal prohibitions in LAC 33:V.Chapter 22.
On-site \$1,000

Off-site Non-commercial \$2,000
Reclaimer \$2,500
Off-Site Commercial \$5,000

- G. Groundwater Protection Fee (applies only to sites with groundwater monitoring) in accordance with LAC 33:V.5139.
- H. Incinerator and Boiler/Industrial Furnace Inspection and Monitoring Fee in accordance with LAC 33:V.5141.
- I. Annual Landfill Inspection and Monitoring Fee in accordance with LAC 33:V.5143.
- J. Annual Land Treatment Unsaturated Zone Monitoring Inspection Fee in accordance with LAC 33:V.5145.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:318 (May 1986), LR 12:676 (October 1986), LR 13:433 (August 1987), LR 15:378 (May 1989), LR 16:684 (August 1990), LR 16:1057 (December 1990), LR 18:723 (July 1992), LR 18:1375 (December 1992).

Response: Cytec acknowledges the above citation.

§5120. Land Disposal Prohibition Petition Fees

Petitions submitted in accordance with R.S. 30:2193(E)(2) and/or LAC 33:V.Chapter 22 are subject to additional fees as noted below for each petition submitted. These fees must be submitted at the time a petition is submitted.

Variance \$ 10,000

Exemption 45,000

Extension 5,000

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 17:658 (July 1991).

Response: Cytec acknowledges the above citation.

§5121. Generators of Hazardous Waste

- A. All generators of hazardous waste must file or have on file a notification of that facility, using Notification Form HW-1 available from the administrative authority (See LAC 33:V.303.A).
- B. For generators of hazardous waste, the Notification Form HW-1 shall be deemed a registration upon acceptance and approval by the administrative authority.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 14:621 (September 1988).

Response: Cytac acknowledges the above citation. Cytac has submitted a Notification Form HW-1 to the administrative authority. A copy of the Notification Form HW-1 is included in Volume 1 of the June 1, 1998 submittal.

§5123. Registration Fees, HW-1

An initial registration fee is charged for each generator, transporter, or TSD facility obtaining an EPA Identification Number from the department. There is no fee for modifying an existing registration based on any change of information submitted on Notification Form HW-1.

Initial Fee \$ 9.46

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:319 (May 1986), LR 12:676 (October 1986), LR 13:433 (August 1987), LR 14:622 (September 1988), LR 18:725 (July 1992).

Response: Cytac acknowledges the above citation.

§5125. Annual Monitoring and Maintenance Fee

- A. Fee will annually be \$283.65, plus the prohibited waste fee.
- B. Annual prohibited waste fee is \$100 for each generator who generates for land disposal as provided in LAC 33:V.Chapter 22. The generator will be subject to this fee if any waste generated is prohibited from disposal at any time during the year for which the fee is assessed.
- C. All annual fees provided by this Chapter shall be paid by the due date indicated on the invoice.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:321 (May 1986), LR 12:676 (October 1986), LR 13:433 (August 1987), LR 15:378 (May 1989), LR 17:658 (July 1991), amended by the Office of Management and Finance, Fiscal Services Division, LR 22:18 (January 1996).

Response: Cytac acknowledges the above citation.

§5127. Payment

All fee payments shall be made by check, draft, or money order payable to the Department of Environmental Quality and mailed to the department at the address provided on the invoice.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 18:725 (July 1992), amended by the Office of Management and Finance, Fiscal Services Division, LR 22:18 (January 1996).

Response: Cytec acknowledges the above citation.

§5129. Late Payment

Fees not received within 15 days of the due date will be charged an additional 10 percent per month of the original assessed fee. The late fee shall be calculated starting from the due date indicated on the invoice.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986), LR 18:725 (July 1992), amended by the Office of Management and Finance, Fiscal Services Division, LR 22:18 (January 1996).

Response: Cytec acknowledges the above citation.

§5131. Failure to Pay

Failure to pay the prescribed application fee or annual fee as provided herein will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:321 (May 1986), LR 12:676 (October 1986), LR 13:433 (August 1987), LR 18:725 (July 1992).

Response: Cytec acknowledges the above citation.

§5133. Effective Date

- A. The application fees prescribed herein shall be required for all applications filed on or after these fee regulations are published in the Louisiana Register as adopted.

- B. The annual fees prescribed herein shall be effective for the state fiscal year in which these fee regulations are published in the Louisiana Register as adopted and each state fiscal year thereafter. Fees submitted to the department in accordance with previous fee regulations for the state fiscal year in which these fee regulations are published in the Louisiana Register as adopted shall be credited against the fees and due and payable under these fee regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:533 (May 1985), LR 12:676 (October 1986).

Response: Cytec acknowledges the above citation.

§5135. Transporter Fee

- A. All transporters of hazardous waste with a facility in Louisiana shall pay a fee of \$200 per year to the department. There will be only one fee regardless of the number of vehicles in the service of the transporter.
- B. All transporters of hazardous waste which do not have a facility in Louisiana shall pay a fee of \$10 per vehicle when traveling through or into the state.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 14:622 (September 1988).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.5135 do not apply to Cytec because Cytec is not a transporter of hazardous waste.

§5136. Manifest Form Fee

These fees cover the costs associated with printing, handling, data entry, and other administrative activities.

- A. The fee for manifest forms acquired according to LAC 33:V.1107.A.9 and LAC 33:V.Chapter 40 shall be \$1.50 per form.
- B. The fee for continuation sheets acquired according to LAC 33:V.1107.A.9 shall be \$2.50 per form.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:267 (March 1995).

Response: Cytec acknowledges the above citation.

§5137. Small Quantity Generator Fee

Small quantity generators (see LAC 33:V.3901) shall pay a fee of \$50 per year to the department.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 14:622 (September 1988).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.5137 do not apply to Cytec because Cytec is not a small quantity generator.

§5139. Groundwater Protection Permit Review Fee

- A. **Permit Review Fee.** This fee covers the cost of reviewing permits for geology, geotechnical design, and groundwater protection aspects.
Hazardous Waste Facilities (1 time) \$ 5,000 each
Permit Modifications
Class 1 \$ 200 each
Class 2 and 3 \$ 750 each
Solid Waste Facilities (1 time) \$ 5,000 each
Permit Modifications
Major \$ 500 each
Minor \$ 200 each
- B. **Oversight of Abandonment Procedures.** This fee covers the cost of reviewing plans to plug and abandon all permitted groundwater monitoring systems (monitoring wells, piezometers, observations wells, and recovery wells) to ensure that they do not pose a potential threat to groundwater.
Casing pulled \$ 100 each
Casing reamed out \$ 200 each
Casing left in place \$ 500 each
- C. **Groundwater Monitoring Systems Installation Permit.** This fee covers the cost of reviewing the geology and design of proposed groundwater monitoring systems to ensure compliance with department specifications for units subject to permitting under these regulations.
Each Well \$ 500
- D. **Groundwater Monitoring Systems Inspection Fee (Annual).** This fee covers the cost of inspecting monitoring systems for units subject to permitting under these regulations, to ensure that they are functioning properly and continue to maintain their integrity.
Each Well \$ 250

AUTHORITY NOTE: Promulgated in accordance with 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Groundwater Division, LR 14:621 (September 1988), amended LR

16:685 (August 1990), amended by the Hazardous Waste Division, LR 18:725 (July 1992), LR 18:1256 (November 1992).

Response: Cytec acknowledges the above citation.

§5141. Incinerator and Boiler/Industrial Furnace Inspection and Monitoring Fee

- A. Trial Burn or Test Burn Observer Fee. This is a special fee charged at a daily rate to cover the cost to the Hazardous Waste Division of providing and placing on site a regulatory observer team during incinerator trial burns, boiler/industrial furnace trial burns or other types of test burns required by regulations or the administrative authority when an observer team is required by regulations, specified by permit conditions, or considered necessary to ensure that human health and the environment are adequately protected.
1. This fee will be \$500 for each day of the test burn or trial burn.
 2. This fee will be billed following completion of the trial burn or test burn and must be paid by the due date indicated on the invoice.
- B. Annual Monitoring and Maintenance Fee for Incinerators, Boilers, Industrial Furnaces and Commercial Recycling Furnaces. This is an annual fee applied to defray the cost to the Hazardous Waste Division of annually inspecting the required continuous monitors and recording devices for each incinerator, boiler or industrial furnace to determine whether they are being properly maintained and calibrated. This fee will annually be a flat \$1,000.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR:16:1057 (December 1990), amended LR 18:1375 (December 1992), amended by the Office of Management and Finance, Fiscal Services Division, LR 22:18 (January 1996).

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.5141 do not apply to Cytec because does not own or operate a hazardous waste incinerator or boiler/industrial furnace.

§5143. Annual Landfill Inspection and Monitoring Fee

An annual fee shall be charged for the inspection of the regulatory requirement for leak detection and leachate collection systems associated with hazardous waste landfills to determine operational status and degree of proper maintenance. For each landfill unit or cell with a separate leak detection and leachate collection system, the annual fee will be \$100.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR:16:1057 (December 1990), LR 18:725 (July 1992).

Response: Cytac acknowledges the above citation. The requirements of LAC 33:V.5143 do not apply to Cytac because does not own or operate a hazardous waste landfill.

§5145. Annual Land Treatment Unsaturated Zone Monitoring

Inspection Fee

- A. Semiannual Zone of Incorporation (ZOI) Inspection Fee.** This fee covers the cost of inspection and random sampling and laboratory analysis of the zone of incorporation.
ZOI soil samples \$ 1,000 each acre
Soil-pore liquid monitors(Lysimeters) \$ 2,500 each monitor
- B. Annual Land Treatment Unit Report Review Fee.** This fee covers the cost of reviewing the report required by final permits for land treatment. Included in the annual land treatment unit report are the results of the unsaturated zone monitoring. Included are the semiannual soil core sample analyses and the quarterly soil-pore liquid quality analyses from below the treatment zone. Also included are soil moisture tensiometer readings of the ZOI.
Hazardous Waste Facilities \$ 1,000 each report
- C. Permit Review Fee.** This fee covers the cost of reviewing permits for geology, geotechnical design, and hydrological separation requirements of these regulations.
Initial Permit \$ 5,000 each
Permit Modifications
Class 1 \$ 200 each
Class 2 and 3 \$ 750 each

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2014 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:1057 (December 1990).

Response: Cytac acknowledges the above citation. The requirements of LAC 33:V.5145 do not apply to Cytac because does not own or operate a hazardous waste land treatment facility.

**Attachment A
LDEQ Administrative Completeness Review I/
Notice of Deficiency I Dated November 5, 1998
Cytec Request for Extension Dated November 23, 1998
LDEQ Extension Request Approval Dated December 3, 1998**



State of Louisiana
Department of Environmental Quality



L.J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

November 5, 1998

CERTIFIED MAIL P 138 802 911
RETURN RECEIPT REQUESTED

Mr. Jaswant S. Gill, Plant Manager
CYTEC INDUSTRIES INC
Fortier Plant
10800 River Road
Westwego, LA 70094

NOV - 9 1998

RE: CYTEC Industries, Inc.
LAD 008 175 390
RCRA Part II Permit Renewal Application
Administrative Completeness Review / Notice of Deficiency (NOD) I

Dear Mr. Gill:

The Hazardous Waste Division (HWD) has completed the administrative completeness review of the RCRA Part B Permit Renewal Application, dated June 1, 1998. The review began on September 1, 1998, after receipt of your application fee. The HWD has determined that the permit renewal application is deficient. Attached is a Notice of Deficiency resulting from the review.

This letter constitutes notification that you are required to submit five (5) copies of written responses to the attached Notice of Deficiency to the HWD within thirty (30) days after receipt of this letter. Lockheed Martin must provide a written response to each individual deficiency as listed. Revised tables or figures may also be submitted, if required. If an applicant fails or refuses to correct deficiencies in the application, the permit renewal may be denied by the Administrative Authority.

Questions or comments should be addressed to Mr. Shan Schatzle or Mr. Eric Garner of the HWD, Permits Section at (504) 765-0272.

Sincerely,

James H. Brent

James H. Brent, Ph.D.
Administrator

JHB/EG/eg

OFFICE OF SOLID AND HAZARDOUS WASTE

HAZARDOUS WASTE DIVISION

P.O. BOX 82178

BATON ROUGE, LOUISIANA 70884-2178

TELEPHONE (504) 765-0355

FAX (504) 765-0817

AN EQUAL OPPORTUNITY EMPLOYER



CYTEC INDUSTRIES, INC
LAD 008 175 390
RCRA Part II Permit Renewal Application
COMPLETENESS NOTICE OF DEFICIENCY I

#	REGULATION/LOCATION	COMMENTS
1.	LAC 33:V.517.L	In response to this regulation, the applicant references a list of general qualifications of key operating positions at the facility in Appendix S. No list was found. Therefore, the applicant must provide this information.
2.	LAC 33:V.Chapter 7, 9, 11, and 13	No response is provided to Chapters 7, 9, 11, or 13. In order for the application to be deemed complete, the applicant must respond to all applicable regulations contained within LAC 33:V. If a chapter or specific regulation within a chapter does not apply, the applicant must provide a response that states why the regulation is not applicable.
3.	LAC 33:V.Chapter 17	<p>The Memorandum of Understanding (MOU), referenced in the response to LAC 33:V.1701, covers RCRA, but the response citing the MOU does not explain what is done that meets or exceeds the regulations. The applicant must include all of Chapter 17 text and respond to the cited text in detail, explaining what is done to meet the requirements, rather than simply referencing the MOU.</p> <p>Additionally, the federal provisions in 40 CFR Subpart CC have not been incorporated into LAC 33:V. Chapter 17. The applicant must cite Subpart CC using the Code of Federal Regulations text and respond to the cited text in detail, explaining what is done to meet the requirements, rather than simply referencing the MOU.</p>
4.	LAC 33:V.Chapter 33	LAC 33:V.3303 and subsequent regulations of Chapter 33 are not included. If the Chapter or specific regulations within the Chapter do not apply, the applicant must provide a response that states why the regulation is not applicable.

CYTEC INDUSTRIES, INC
LAD 008 175 390
RCRA Part II Permit Renewal Application
COMPLETENESS NOTICE OF DEFICIENCY I

#	REGULATION/LOCATION	COMMENTS
5.	LAC 33:V.Chapter 35	LAC 33:V.3521 and subsequent sections of Chapter 35 are not included. If the Chapter or specific regulations within the Chapter do not apply, the applicant must provide a response that states why the regulation is not applicable.
6.	LAC 33:V.3707.F.1.a&b	These regulations were cited using an older version of LAC 33:V. The regulations cited in the application should be taken from the most recent version of LAC 33:V.
7.	LAC 33:V.3711.F.1.a&b	These regulations were cited using an older version of LAC 33:V. The regulations cited in the application should be taken from the most recent version of LAC 33:V.
8.	LAC 33:V.3715.F.1.a&b	These regulations were cited using an older version of LAC 33:V. The regulations cited in the application should be taken from the most recent version of LAC 33:V.
9.	LAC 33:V.3719.G	These regulations were cited using an older version of LAC 33:V. The regulations cited in the application should be taken from the most recent version of LAC 33:V.
10.	LAC 33:V.Chapters 38, 39, and 40	Chapters 38, 39, and 40 are not cited, nor is it explained that these operations are not conducted at the facility. The applicant must cite the regulations contained within these chapters, and provide a response. If the chapter or specific regulations within the chapter do not apply, the applicant must provide a response that indicates why.

CYTEC INDUSTRIES, INC

LAD 008 175 390

RCRA Part II Permit Renewal Application

COMPLETENESS NOTICE OF DEFICIENCY I

#	REGULATION/LOCATION	COMMENTS
11.	LAC 33:V.Chapters 43 and 49	Chapters 43 and 49 are not cited nor is it explained why the chapters do not apply. The applicant must cite the regulations contained within these chapters and provide a response. If the chapter or specific regulations within the chapter do not apply, the applicant must provide a response that indicates why.
12.	LAC 33:V.Chapter 51	Application fees were submitted separate from the Part A/B document. Responses to Chapter 51 and any calculation of application fees should be submitted with the Part B application.



bc A. Junker
J. Schneller
S. Foret/File 4360
G. Campbell
L. Doucette-Ashman

CYTEC INDUSTRIES INC.

Fortier Plant
10800 River Road
Westwego, LA 70094
Tel: (504) 431-9511

Via Fax 504-765-0617

Certified Mail No. Z 106 386 661

Return Receipt Requested

November 23, 1998

James H. Brent, Ph.D., Administrator
LDEQ/HWD-Permit Section
Post Office Box 82178
Baton Rouge, LA 70884-2178

Cytec Industries Inc.- Fortier Manufacturing Complex, EPA I.D. No. LAD 008175390
RCRA Part II Permit Renewal Application
Administrative Completeness Review I/Notice of Deficiency (NOD) I
Request for Extension

Dear Dr. Brent:

Cytec Industries Inc. (Cytec) located in Waggaman, Jefferson Parish, Louisiana is hereby requesting LDEQ's permission for an extension of time for submitting the RCRA Part II Permit Renewal Application - Administrative Completeness Review I/Notice of Deficiency (NOD) I response.

Cytec is requesting that LDEQ grant a later filing date of January 15, 1998 in order to allow a sufficient amount of time and resources to adequately respond to the Notice of Deficiency I.

If you have any questions or require additional information, please contact Ms. Stacy M. Foret at (504) 431-6479 or Ms. Anita Junker at (504) 431-6556.

I certify under penalty of the law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

This submission and any past or future communications or discussions regarding this matter are not intended to admit any fact or liability or waive or affect any rights.

Very truly yours,


Jaswant S. Gill
Director - Manufacturing and Building Blocks 

cc Eric Garner, LDEQ HW Permits Division, Baton Rouge, LA via Fax 504-765-0617



SF
State of Louisiana

Department of Environmental Quality



M.J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

CERTIFIED MAIL P 138 802 914
RETURN RECEIPT REQUESTED

December 3, 1998

Mr. Jaswant S. Gill, Plant Manager
CYTEC INDUSTRIES INC.
Fortier Plant
10800 River Road
Westwego, LA 70094

DEC - 7 1998

RE: CYTEC Industries Inc
LAD 008 175 390
RCRA Part B Permit Renewal Application
Extension Request for Response to Administrative Completeness Review I/NOD I

Dear Mr. Gill:

The Hazardous Waste Division (HWD) has received your letter, dated November 23, 1998, requesting an extension for submittal of your Response to the Administrative Completeness Review I/Notice of Deficiency (NOD) I for the RCRA Part B Permit Renewal Application. The HWD hereby approves your request. Your response will be due January 15, 1999.

If you have any questions or comments, please contact Mr. Shan Schatzle or Mr. Eric Garner of the HWD, Permits Section at (504) 765-0272.

Sincerely,

James H. Brent

James H. Brent, Ph.D.
Administrator

JHB/EG/eg

OFFICE OF SOLID AND HAZARDOUS WASTE

HAZARDOUS WASTE DIVISION

P.O. BOX 82178

BATON ROUGE, LOUISIANA 70884-2178

TELEPHONE (504) 765-0355

FAX (504) 765-0617

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**Attachment B
Hazardous Waste Management
Key Operating Positions and
General Qualifications**

Hazardous Waste Management Key Operating Positions and General Qualifications

Acrylamide

AMD Loading Operator

High school education with some vo-tech courses and previous experience in an industrial environment preferred. Knowledge of basic math and chemistry. Ability to read gauges, diagrams, computer printouts, etc. Ability to use basic tools in safe and efficient manner as required. Knowledge of basic chemical manufacturing operations and knowledge of common safety hazards and precautions to establish a safe work environment. Ability to communicate clearly and establish and maintain an effective working relationship with supervisors and co-workers. Good physical condition.

Process Supervisor

High school degree; College/Technical degree recommended; 10 years experience in a continuous chemical process or refinery; 5 years experience in the Acrylamide Plant operations; Knowledge of safety/environmental regulations; Ability to work effectively with people; good written and oral communication skills; knowledge of Acrylamide Plant process and equipment; ability to work with all levels of management; good knowledge of engineering fundamentals.

Process Engineer

B.S. in engineering preferably with some industrial work experience; good knowledge of engineering fundamentals.

Acrylonitrile

Waste Disposal Operator

High school education with some vo-tech courses and previous experience in an industrial environment preferred. Knowledge of basic math and chemistry. Ability to read gauges, diagrams, computer printouts, etc. Ability to use basic tools in safe and efficient manner as required. Knowledge of basic chemical manufacturing operations and knowledge of common safety hazards and precautions to establish a safe work environment. Ability to communicate clearly and establish and maintain an effective working relationship with supervisors and co-workers. Good physical condition.

Shift Supervisor

High School with some technical education; 5-10 years experience in a large continuous manufacturing facility; knowledge of Acrylo operator jobs; good written and oral communication skills; ability to demonstrate leadership; chemical and mechanical knowledge of plant; working knowledge of Acrylonitrile Plant; good human relations

skills; good practice and awareness of safety and environmental regulations; good communication skills; mechanical aptitude; leadership ability.

Process Supervisor

High school degree; College/Technical degree recommended; 10 years experience in a continuous chemical process or refinery; 5 years experience in the Acrylonitrile Plant operations; Knowledge of safety/environmental regulations; Ability to work effectively with people; good written and oral communication skills; knowledge of acrylonitrile plant process and equipment; ability to work with all levels of management; good knowledge of engineering fundamentals.

Manufacturing Supervisor

Technical 4 year degree in chemistry/engineering recommended; 5-10 years experience in operations; supervisory experience 1-5 years; knowledge of safety/environmental regulations; ability to manage people; good knowledge of engineering fundamentals; good written and oral communication skills.

Process Engineer

B.S. in engineering preferably with some industrial work experience; good knowledge of engineering fundamentals.

Methyl Methacrylate

Shift Supervisor

High School education; 5-10 years experience in a complex continuous chemical or petrochemical plant with special emphasis on continuous distillation process; good mechanical background and knowledge; working knowledge of Cytex Personnel policies; able to direct the work of subordinates; know and understand plant operating procedures; good communication abilities; ability to troubleshoot plant operational problems; assume responsibility; know how to read and interpret process and instrument drawings.

Manufacturing Supervisor

High School education; 5-10 years experience in a complex continuous chemical or petrochemical plant with special emphasis on continuous distillation processes; good mechanical background and knowledge; leadership and good communication skills; must be a responsible and hard working individual; knowledgeable in Cytex Personnel policies; must be knowledgeable in all aspects of the MMA plant operations; must have the ability to quickly analyze situations and make decisions based on the best knowledge available; good mechanical aptitude; ability to effectively troubleshoot plant operations problems; good verbal and written communications skills.

Utilities

Water Treatment Operator

High school education with some vo-tech courses and previous experience in an industrial environment preferred. Knowledge of basic math and chemistry. Ability to read gauges, diagrams, computer printouts, etc. Ability to use basic tools in safe and efficient manner as required. Knowledge of basic chemical manufacturing operations and knowledge of common safety hazards and precautions to establish a safe work environment. Ability to communicate clearly and establish and maintain an effective working relationship with supervisors and co-workers. Good physical condition

Field/EOP Operator

High school education with some vo-tech courses and previous experience in an industrial environment preferred. Knowledge of basic math and chemistry. Ability to read gauges, diagrams, computer printouts, etc. Ability to use basic tools in safe and efficient manner as required. Knowledge of basic chemical manufacturing operations and knowledge of common safety hazards and precautions to establish a safe work environment. Ability to communicate clearly and establish and maintain an effective working relationship with supervisors and co-workers. Good physical condition

Process Supervisor

High school graduate; 3-5 years experience in supervisory capacity in a chemical environment; computer knowledge; experience in maintenance and production; good leader and able to motivate people; knowledge of computers, policies, union contract, and safety requirements; ability to make decisions; knowledge of company policies and rules; ability to communicate with subordinates and higher management; ability to write tests and training modules.

Manufacturing Tech

High school diploma required; college degree in chemical, electrical, or mechanical engineering preferred; at least 5 years in high volume, integrally designed, continuous operating chemical plants; at least 2-3 years supervisory experience; must have knowledge of chemistry, computers, policies union contract, and plant safety requirements; must have ability to communicate and work with all levels of management; must have good verbal and written communication skills; familiar with basic accounting principles; should have the ability to identify problems and make decisions to eliminate problems; should have high mechanical aptitude; able to lead people; able to read mechanical and electrical drawings and flow diagrams; knowledge of procedural practice; basic knowledge of environmental laws and regulations; attitude based on safety and quality.

Manufacturing Supervisor

High school diploma required; B.S. degree in engineering preferred; experienced in first line supervision; working knowledge of Fortier Plant electrical system; knowledgeable in union contract and plant safety policies; Must be able to communicate and work with all levels of management; must have good verbal and written communication skills; should know basic accounting principles; must possess good problem-solving skills; should have high mechanical aptitude; must possess good leadership skills; should be able to read mechanical and electrical drawings and flow diagrams; must have a basic knowledge of environmental laws and regulations; must have an attitude based on safety and quality.

Fortier Plant

Responsible Care Coordinator

B.S. in engineering or a related technical field (e.g., chemistry, geology, environmental science, etc.); preferably some years of experience in the industrial, regulatory, or consulting area; knowledge of EPA regulations; familiarization with OSHA regulations, communication and negotiation skills (verbal and written), computer literate; P.E. not required but is a plus; project management skills; regulatory interpretation skills; scientific, technical and mathematical skills.

Process Owner

B.S. in engineering or a related technical field (e.g., chemistry, geology, environmental science, etc.); preferably some years of experience in the industrial, regulatory, or consulting area; knowledge of EPA regulations; familiarization with OSHA regulations, communication and negotiation skills (verbal and written), computer literate; P.E. not required but is a plus; project management skills; regulatory interpretation skills; scientific, technical and mathematical skills.

Environmental Team Leader

B.S. in Engineering or a related technical field (e.g., chemistry, geology, environmental science, etc.); 10 years experience, with at least 5 years in the industrial environmental area; Knowledge of EPA regulations; familiarization with OSHA regulations, communication and negotiation skills (verbal and written); computer literate; P.E. not required but a plus; management skills; decision making skills; knowledge of plant processes; knowledge of state and federal rules and laws.

**Cytac Industries Inc. - Fortier
EPA I.D. No. LAD 008175390**

**Waggaman, Jefferson Parish
Chemical Plant
Response to Completeness NOD I**

**RCRA Part II; 06/01/88
Revision I; 01/15/99**

**Attachment C
Paid Invoice No. 594020002
Permit Application and Review Fee**



State of Louisiana

Department of Environmental Quality



M.J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

Certified Mail #

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF WASTE SERVICES
HAZARDOUS WASTE DIVISION

Invoice No 596020002

"Revision"

Invoice Date 9/18/98

Due Date

ISSUED TO:

LAD008175390
Cytec Industries Inc
10800 River Road
Westwego, LA 70094

FOR OFFICE USE ONLY	
DATE OF CHECK	CHECK #
8/13/98	123273
AMOUNT RECEIVED	\$ 13,812.50

PERMIT APPLICATION AND REVIEW FEE - LAC 33:V.5111, 5139, AND 5145

DESCRIPTION	AMOUNT
APPLICATION FEE SCHEDULE (LAC 33:V.5111.B)	
Site Analysis - per acre site size 4.5 @ \$ 250 EACH	\$1,125.00
Process and Plan Analysis	\$1,000.00
Facility Analysis - per facility 15 @ \$ 500 EACH	\$7,500.00
Management/financial analysis	\$1,000.00
APPLICATION FEE	\$10,625.00
*Initial Res and Dev Fee Schedule - LAC 33:V.5111.C	* \$0.00
Administrative Cost Fee (Application Fee X 0.30) - LAC 33:V.5111.D	\$3,187.50
UNDERWATER PROTECTION PERMIT REVIEW FEE (LAC 33:V.5139)	
Permit Review Fee (LAC 33 V.5139.A)	
Hazardous Waste Facilities (1 Time) 0 @ \$5000 EACH	\$0.00
Permit Modifications	
Class 1 0 @ \$ 200 EACH	\$0.00
Class 2 and 3 0 @ \$ 750 EACH	\$0.00
Solid Waste Facilities (1 Time) 0 @ \$5000 EACH	\$0.00
Permit Modifications	
Major 0 @ \$ 500 EACH	\$0.00
Minor 0 @ \$ 200 EACH	\$0.00
Oversight of Abandonment Procedures (LAC 33:V.5139.B)	
Casing Pulled 0 @ \$ 100 EACH	\$0.00
Casing Reamed Out 0 @ \$ 200 EACH	\$0.00
Casing Left in Place 0 @ \$ 500 EACH	\$0.00
Groundwater Monitoring System Installation Permit (LAC 33:V.5139.C)	
Well 0 @ \$ 500 EACH	\$0.00
ANNUAL LAND TREATMENT UNSATURATED ZONE MONITORING (LAC 33:V.5145)	
Permit Review Fee (LAC 33:V.5145.C)	
Initial Permit 0 @ \$5000 EACH	\$0.00
Permit Modifications	
Class 1 0 @ \$ 200 EACH	\$0.00
Class 2 and 3 0 @ \$ 750 EACH	\$0.00
TOTAL AMOUNT DUE	\$13,812.50

MAKE CHECK PAYABLE TO:

"LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY"

MAIL TO:

DEQ FISCAL SERVICES DIVISION
P.O. BOX 82281
BATON ROUGE, LA 70884-2281

FEDERAL TAX ID NO - 72-0999270

* - Authority LA RS 30:2014 (C); Repealed by Acts 1997, No. 124, §2.

OFFICE OF WASTE SERVICES HAZARDOUS WASTE DIVISION P.O. BOX 82178 BATON ROUGE, LOUISIANA 70884-2178

TELEPHONE (504) 765-0355 FAX (504) 765-0617

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State of Louisiana
Department of Environmental Quality



M.J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

Invoice Account Adjustment

Date: SEP 18 1998 Adjustment Number: _____

Division: Hazardous Waste

Company Name: Cytec Industries Inc

Invoice #: 594020002 Current Invoice Amt: \$13,812.00

Invoice Date: 9/1/98 Debit (+) \$0.00

Fiscal Year: 99 Credit (-) \$13,812.00

Adjusted Invoice Amt: \$0.00

Justification: Invalid Invoice Number for FY99 regarding Permit Fee Invoices: therefore, invoice number 594020002 is "VOID". Invoice number has been changed to a correct invoice number of 596020002 to reflect the current invoice amount.

Prepared by: _____

Gregory Cooper
Gregory Cooper, ES III

Approved by: _____

James H. Brent
James H. Brent, Ph. D.,
Administrator

Posted: _____
Date

By: _____

OFFICE OF WASTE SERVICES

HAZARDOUS WASTE DIVISION

P.O. BOX 82178

BATON ROUGE, LOUISIANA 70884-2178

TELEPHONE (504) 765-0355

FAX (504) 765-0617

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State of Louisiana

Department of Environmental Quality



M.J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

Certified Mail #

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF WASTE SERVICES
HAZARDOUS WASTE DIVISION

Invoice No. 39402004
Invoice Date 9/1/98
Due Date

ISSUED TO:

LAD000175390
Cytec Industries Inc
10800 River Road
Westwego, LA 70094

FOR OFFICE USE ONLY	
DATE OF CHECK	CHECK #
8/13/98	123273
AMOUNT RECEIVED	(\$13,812.50)

PERMIT APPLICATION AND REVIEW FEE - LAC 33:V.5111, 5139, AND 5145

DESCRIPTION	AMOUNT
APPLICATION FEE SCHEDULE (LAC 33:V.5111.B)	
Site Analysis - per acre site size 4.5 @ \$ 250 EACH	\$1,125.00
Process and Plan Analysis	\$1,000.00
Facility Analysis - per facility 15 @ \$ 500 EACH	\$7,500.00
Management/financial analysis	\$1,000.00
APPLICATION FEE	\$10,625.00
*Initial Res and Dev Fee Schedule - LAC 33:V.5111.C	* \$0.00
Administrative Cost Fee (Application Fee - \$30) - LAC 33:V.5111.D	\$3,187.50
GROUNDWATER PROTECTION PERMIT REVIEW FEE (LAC 33:V.5139)	
Permit Review Fee (LAC 33:V.5139.A)	
Hazardous Waste Facilities (1 Time)	0 @ \$5000 EACH
Permit Modifications	
Class 1	0 @ \$ 200 EACH
Class 2 and 3	0 @ \$ 750 EACH
Solid Waste Facilities (1 Time)	0 @ \$5000 EACH
Permit Modifications	
Major	0 @ \$ 500 EACH
Minor	0 @ \$ 200 EACH
OVERSIGHT OF ABANDONMENT PROCEDURES (LAC 33:V.5139.B)	
Casing Pulled	0 @ \$ 100 EACH
Casing Reamed Out	0 @ \$ 200 EACH
Casing Left in Place	0 @ \$ 500 EACH
GROUNDWATER MONITORING SYSTEM INSTALLATION PERMIT (LAC 33:V.5139.C)	
Well	0 @ \$ 500 EACH
ANNUAL LAND TREATMENT UNSATURATED ZONE MONITORING (LAC 33:V.5145)	
Permit Review Fee (LAC 33:V.5145.C)	
Initial Permit	0 @ \$5000 EACH
Permit Modifications	
Class 1	0 @ \$ 200 EACH
Class 2 and 3	0 @ \$ 750 EACH
TOTAL AMOUNT DUE	\$13,812.50

MAKE CHECK PAYABLE TO:

"LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY"

MAIL TO:

DEQ FISCAL SERVICES DIVISION
P.O. BOX 82281
BATON ROUGE, LA 70884-2281

FEDERAL TAX ID NO - 72-0999270

* Authority LA RS 30:2014(C); Repealed by Senate Bill Number - 1175, Regular Session, 1997

OFFICE OF SOLID AND HAZARDOUS WASTE HAZARDOUS WASTE DIVISION P.O. BOX 82178 BATON ROUGE, LOUISIANA 70884-2178

TELEPHONE (504) 765-0355 FAX (504) 765-0617

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97-02

1998

Comparison of Calculated Max Organic Vapor Pressure to EPA RCRA Subpart CC Max Allowable Organic Vapor Pressures

Atmospheric Tank	Max Organic Vapor Pressure (kPa)	RCRA Subpart CC Max Allowable Vapor Pressure Limit (kPa)
TA404 WWCB Primary Filter Feed	1.58	5.2
TA403 WWCB Catalyst Settling	1.58	5.2
MF307 WWCB Secondary Filter Feed	1.58	5.2
TA402 WWCB Injection	1.58	76.6
TA501A WWCB Backwash North	1.58	5.2
TA501B WWCB Backwash South	1.58	5.2
100-6 RCB Backwash	0.11	76.6
MET 1.0*	0.70	5.2
MET 2.0*	0.70	5.2
T500 MET Injection	0.70	5.2

- * Calculated vapor pressures are overestimated since VO concentrations in MET tanks 1.0 and 2.0 are based on higher T500 VO concentrations.

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Revised: 07/31/98

Vapor Pressure Calculations

MET at 200 deg F

CAS #	Component	Mass Fraction	Molecular Mass	Moles	Mole Fraction	Vapor Pressure (kPa)	Partial Pressure (kPa)
64-19-7	Acetic acid	1400	60.05	23.3139	0.00042	46	0.019522
75-07-0	Acetaldehyde	155	44.05	3.5187	0.00006	797.79	0.051100
67-64-1	Acetone	440	58.08	7.57576	0.00014	339.4	0.046804
75-05-8	Acetonitrile	7300	41.05	177.832	0.00324	147	0.475850
107-02-8	Acrolein	2.4	56.06	0.04281	0.00000	329	0.000256
79-06-1	Acrylamide	600	71.08	8.44119	0.00015	0.0489	*
79-10-7	Acrylic acid	390	72.06	5.41216	0.00010	19.3	*
107-13-1	Acrylonitrile	250	53.06	4.71165	0.00009	170	0.014580
107-18-6	Allyl alcohol	79	58.08	1.36019	0.00002	88.56	0.002193
71-43-2	Benzene	1.26	78.11	0.01613	0.00000	147.5	0.000043
4786-20-3	cis-Crotonitrile	2	67.09	0.02981	0.00000	67.1	0.000036
4786-20-3	trans-Crotonitrile	2	67.09	0.02981	0.00000	43.1	0.000023
75-12-7	Formamide	31	45.04	0.68828	0.00001	0.6129	*
64-18-6	Formic acid	210	46.03	4.56224	0.00008	84.6	*
764-42-1	Fumaronitrile	61	78.07	0.78135	0.00001	4.9	0.000070
547-63-7	MAI						
79-41-4	Methacrylic acid	93	86.09	1.08026	0.00002	8	0.000157
126-98-7	Methacrylonitrile	1	67.09	0.01491	0.00000	108	0.000029
67-56-1	Methanol	405	32.04	12.6404	0.00023	273.6	0.062954
78-93-3	MEK	0.16	72.1	0.00222	0.00000	153.2	0.000006
563-80-4	MIPK	88	86.15	1.02147	0.00002	96.6	0.001786
80-62-6	MMA	190	100.11	1.89791	0.00003	80.9	0.002795
107-12-0	Propionitrile	670	55.08	12.16412	0.00022	93	0.020592
110-86-1	Pyridine	43	79.1	0.54362	0.00001	50.7	0.000502
110-61-2	Succinonitrile	4400	84.12	52.3062	0.00095	0.1363	0.000130
108-88-3	Toluene	123	92.13	1.33507	0.00002	60.2	0.001463
	Water	983063.2	18	54614.6	0.99415	na	na
TOTAL		1000000		54935.9	*1.00000		0.700902

Revised: 07/31/88

* Henry's Law constant < 0.1 yk

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Vapor Pressure Calculations

WWCB at 250 deg F

CAS #	Component	Mass Fraction	Molecular Mass	Moles	Mole Fraction	Vapor Pressure (kPa)	Partial Pressure (kPa)
64-19-7	Acetic acid	1920	60.05	31.9734	0.00059	112	0.065918
75-07-0	Acetaldehyde	170	44.05	3.8593	0.00007	1457.86	0.103565
67-84-1	Acetone	41	58.08	0.70592	0.00001	635.3	0.008255
75-05-8	Acetonitrile	2400	41.05	58.4653	0.00108	303	0.326088
107-02-8	Acrolein	79	56.06	1.40920	0.00003	379	0.009831
79-06-1	Acrylamide	1440	71.08	20.2589	0.00037	1.874	*
79-10-7	Acrylic acid	8500	72.06	117.957	0.00217	53	*
107-13-1	Acrylonitrile	6900	53.06	130.0415	0.00239	328	0.785146
107-18-6	Allyl alcohol	45	58.08	0.7748	0.00001	230.18	0.003283
71-43-2	Benzene	0.025	78.11	0.0003	0.00000	305.49	0.000002
4786-20-3	cis-Crotonitrile	80	67.09	1.19243	0.00002	147	0.003227
4786-20-3	trans-Crotonitrile	60	67.09	0.89432	0.00002	97.1	0.001598
75-12-7	Formamide	1770	45.04	39.2984	0.00072	2.5	*
64-18-6	Formic acid	1630	46.03	35.4117	0.00065	179	*
764-42-1	Fumaronitrile	3100	78.07	39.7080	0.00073	15	0.010964
547-63-7	MAI						
79-41-4	Methacrylic acid	67	86.09	0.77826	0.00001	24.3	0.000348
126-98-7	Methacrylonitrile	0.02	67.09	0.00030	0.00000	226.2	0.000001
67-56-1	Methanol	500	32.04	15.6055	0.00029	679	0.195048
78-93-3	MEK						
563-80-4	MIPK						
80-62-6	MMA	7.5	100.11	0.07492	0.00000	182.2	0.000251
107-12-0	Propionitrile	780	55.08	14.16122	0.00026	193	0.050310
110-86-1	Pyridine	655	79.1	8.28066	0.00015	119	0.018139
110-61-2	Succinonitrile	1740	84.12	20.6847	0.00038	0.602	0.000229
108-88-3	Toluene	0.17	92.13	0.00185	0.00000	135.1	0.000005
	water	968115.3	18	53784.2	0.99003	na	na
TOTAL		1000000		54325.7	1.00000		1.582208

R:\CO-OP\CRAC\CRACCS98.WK4

* Henry's Law constant < 0.1 y/x

Revised: 07/31/88

Vapor Pressure Calculations

RCB at 200 deg F

CAS #	Component	Mass Fraction	Molecular Mass	Moles	Mole Fraction	Vapor Pressure (kPa)	Partial Pressure (kPa)
64-19-7	Acetic acid	3500	60.05	58.2848	0.00107	46	0.049124
75-07-0	Acetaldehyde	0.25	44.05	0.0057	0.00000	797.79	0.000083
67-64-1	Acetone	15	58.08	0.25826	0.00000	339.4	0.001606
75-05-8	Acetonitrile	15	41.05	0.36541	0.00001	147	0.000984
107-02-8	Acrolein	20	56.06	0.35676	0.00001	329	0.002151
79-06-1	Acrylamide	117	71.08	1.64603	0.00003	0.0489	*
79-10-7	Acrylic acid	1540	72.06	21.3711	0.00039	19.3	*
107-13-1	Acrylonitrile	800	53.06	15.07727	0.00028	170	0.046963
107-18-6	Allyl alcohol	5	58.08	0.08609	0.00000	88.56	0.000140
71-43-2	Benzene	0.025	78.11	0.00032	0.00000	147.5	0.000001
4786-20-3	cis-Crotonitrile	1	67.09	0.01491	0.00000	67.1	0.000018
4786-20-3	trans-Crotonitrile						
75-12-7	Formamide	41	45.04	0.91030	0.00002	0.6129	*
64-18-6	Formic acid	240	46.03	5.21399	0.00010	84.6	*
764-42-1	Fumaronitrile	175	78.07	2.24158	0.00004	4.9	0.000201
547-63-7	MAI						
79-41-4	Methacrylic acid	7	86.09	0.08131	0.00000	8	0.000012
126-98-7	Methacrylonitrile						
67-56-1	Methanol	15	32.04	0.46816	0.00001	273.6	0.002347
78-93-3	MEK						
563-80-4	MIPK						
80-62-6	MMA	15	100.11	0.14984	0.00000	80.9	0.000222
107-12-0	Propionitrile	15	55.08	0.27233	0.00000	93	0.000464
110-86-1	Pyridine	38	79.1	0.48040	0.00001	50.7	0.000446
110-61-2	Succinonitrile	16500	84.12	196.148	0.00359	0.1363	0.000490
108-88-3	Toluene	0.076	92.13	0.001	0.00000	60.2	0.000001
	water	976940.6	18	54274.5	0.99444	na	na
TOTAL		1000000		54577.9	*1.00000		0.105253

RCO-OPRCRACCNCRACCC98.WK4

* Henry's Law constant < 0.1 yk

Revised: 07/31/88

CYTEC

To: Vincent Diaz

Date: July 23, 1998

Location: Fortier

Copy to: J. Schneller

From: Guy C.A. Rich

P. Mikesell

Location: Fortier

A. Junker

P. Savoy

S. Foret

Subject: Injected Waste Analysis.

File Name: C:\6WINWORD\ENV\WWW 7-98.doc

Contributors: C. J. Wusnack, M. Callahan.

SAMPLE HISTORY

Comprehensive knowledge of the character and composition of this material is necessary for environmental and tax purposes prior to deep well injection. Waste Water, previously analyzed quarterly, is now analyzed on a weekly basis to better monitor how the composition varies with time.

SAMPLE DESCRIPTION

Analysis was performed on Waste Water samples collected on June 13, 20, 27 and July 4, 1998 and on a MET T-500 sample collected on 6/29/98.

Acetaldehyde, acetone, acrylonitrile, acetonitrile, MMA, benzene, and toluene by purge and trap gas chromatography mass spectroscopy (P&T GC-MS) in accordance with SW-846-8260B.

Propionitrile, methanol, fumaronitrile, succinonitrile, allyl alcohol, and pyridine in general accordance with SW-846-8000.

Acrylamide and acrylic acid¹ by modified SW-846-8310

Acetic acid¹ and formic acid¹ by HPLC.

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

RESULTS

Analytical and Quality Assurance (QA) data are tabulated below. **BDL** indicates **Below Detection** it. All results below are in ppm (ug/g).

Monthly Summary Table for Weekly Waste Water Samples

Analyte	6/13/98 #200164607	6/20/98 200165922	6/27/98 200167176	7/4/98 200168264
	ppm	ppm	ppm	ppm
Acetaldehyde	57	170	130	66
Acetone	BDL	2.1	BDL	BDL
Methanol	20	41	49	29
Acrylonitrile	50	4.9	110	2.7
Acetonitrile	30	78	22	34
Propionitrile	290	340	188	156
Ally Alcohol	BDL	33	28	21
Pyridine	169 ²	210 ²	240 ⁴	221 ⁴
Fumaronitrile	1020 ³	1190 ³	780	930
Succinonitrile	61 ²	67 ²	33	19
Formic Acid ¹	500	480	1630	480
Acetic Acid ¹	1300	1260	1280	880
Acrylamide	970	1020	800	930
Acrylic Acid ¹	4700	6300	6100	5300

The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

These data suffered from calibration and analytical difficulties involving poor recovery of check standards. Alternative methods are being investigated.

³ These results are by external standard UVD-HPLC with 5 point and opening and closing check standard.

⁴ Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) check standards. Alternative methods are being investigated.

Monthly Summary Table for Weekly MET T-500 Samples

Analyte	6/29/98 200167495
	ppm
Acetaldehyde	210
Benzene	BDL
Toluene	0.19
Acetone	1600
Methanol	330
Acrylonitrile	18
MMA	450
Acetonitrile	3200
Propionitrile	101
Ally Alcohol	68
Pyridine	22 ⁴
Fumaronitrile	BDL
Succinonitrile	3800
Formic Acid ¹	188
Acetic Acid ¹	640
Acrylamide	139
Acrylic Acid ¹	430

Weekly Waste Water Sample Collected on: 6/13/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	6/24/98	0.50	57
Acetone	SW-846-8260B	CJW	6/24/98	10	BDL
Methanol	SW -846-8000	GAR	6/25/98	10	20
Acrylonitrile	SW-846-8260B	CJW	6/24/98	10	50
Acetonitrile	SW-846-8260B	CJW	6/24/98	10	30
Propionitrile	SW -846-8000	GAR	6/25/98	10	290
Ally Alcohol	SW-846-8000	GAR	6/25/98	10	BDL
Pyridine	SW -846-8000	GAR	6/25/98	10	169 ²
Fumaronitrile	SW -846-8000	GAR	6/25/98	10	1020 ³
Succinonitrile	SW -846-8000	GAR	6/25/98	50	61 ²
Formic Acid ¹	HPLC	GAR	6/25/98	10	500
Acetic Acid ¹	HPLC	GAR	6/25/98	10	1300
Acrylamide	SW -846-8310	GAR	6/26/98	1	970
Acrylic Acid ¹	SW -846-8310	GAR	6/26/98	1	4700

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

² These data suffered from calibration and analytical difficulties involving poor recovery of low level and closing check standards. Alternative methods are being investigated.

³ These results are by external standard UVD-HPLC with 5 point and opening and closing check standard. Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) check standards. Alternative methods are being investigated.

Weekly Waste Water Sample Collected on: 6/20/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	6/24/98	0.50	170
Acetone	SW-846-8260B	CJW	6/24/98	10	2.1
Methanol	SW -846-8000	GAR	6/25/98	10	41
Acrylonitrile	SW-846-8260B	CJW	6/24/98	10	4.9
Acetonitrile	SW-846-8260B	CJW	6/24/98	10	78
Propionitrile	SW -846-8000	GAR	6/25/98	10	340
Ally Alcohol	SW-846-8000	GAR	6/25/98	10	33
Pyridine	SW -846-8000	GAR	6/25/98	10	210 ²
Fumaronitrile	SW -846-8000	GAR	6/25/98	10	1190 ³
Succinonitrile	SW -846-8000	GAR	6/25/98	50	67 ²
Formic Acid ¹	HPLC	GAR	6/25/98	10	480
Acetic Acid ¹	HPLC	GAR	6/25/98	10	1260
Acrylamide	SW -846-8310	GAR	6/26/98	1	1020
Acrylic Acid ¹	SW -846-8310	GAR	6/26/98	1	6300

Weekly Waste Water Sample Collected on: 6/27/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	7/1/98	0.50	130
Acetone	SW-846-8260B	CJW	7/1/98	10	BDL
Methanol	SW -846-8000	GAR	7/10-11/98	10	49
Acrylonitrile	SW-846-8260B	CJW	7/1/98	10	110
Acetonitrile	SW-846-8260B	CJW	7/1/98	10	22
Propionitrile	SW -846-8000	GAR	7/10-11/98	10	188
Ally Alcohol	SW-846-8000	GAR	7/10-11/98	10	28
Pyridine	SW -846-8000	GAR		10	240 ⁴
Fumaronitrile	SW -846-8000	GAR		10	780
Succinonitrile	SW -846-8000	GAR	7/10-11/98	50	33
Formic Acid ¹	HPLC	GAR	7/7/98	10	1630
Acetic Acid ¹	HPLC	GAR	7/7/98	10	1280
Acrylamide	SW -846-8310	GAR	7/8/98	1	800
Acrylic Acid ¹	SW -846-8310	GAR	7/8/98	1	6100

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

² These data suffered from calibration and analytical difficulties involving poor recovery of low level and closing check standards. Alternative methods are being investigated.

³ These results are by external standard UVD-HPLC with 5 point and opening and closing check standard.

⁴ Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) check standards. Alternative methods are being investigated.

Weekly Waste Water Sample Collected on: 7/4/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Aldehyde	SW-846-8260B	CJW	7/10/98	0.50	66
Ketone	SW-846-8260B	CJW	7/10/98	10	BDL
Methanol	SW -846-8000	GAR	7/10-11/98	10	29
Acrylonitrile	SW-846-8260B	CJW	7/10/98	10	2.7
Acetonitrile	SW-846-8260B	CJW	7/10/98	10	34
Propionitrile	SW -846-8000	GAR	7/10-11/98	10	156
Ally Alcohol	SW-846-8000	GAR	7/10-11/98	10	21
Pyridine	SW -846-8000	GAR		10	221 ⁴
Fumaronitrile	SW -846-8000	GAR		10	930
Succinonitrile	SW -846-8000	GAR	7/10-11/98	50	19
Formic Acid ¹	HPLC	GAR	7/7/98	10	480
Acetic Acid ¹	HPLC	GAR	7/7/98	10	880
Acrylamide	SW -846-8310	GAR	7/8/98	1	930
Acrylic Acid ¹	SW -846-8310	GAR	7/8/98	1	5300

Weekly MET T-500 Sample Collected on: 6/29/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	7/9/98	0.50	210
Benzene	SW-846-8260B	CJW	7/9/98	1	BDL
Ethylene	SW-846-8260B	CJW	7/9/98	1	0.19
Ketone	SW-846-8260B	CJW	7/9/98	10	1600
Methanol	SW -846-8000	GAR	7/10-11/98	10	330
Acrylonitrile	SW -846-8000	CJW	7/9/98	10	18
MMA	SW-846-8260B	CJW	7/9/98		450
Acetonitrile	SW-846-8260B	CJW	7/9/98	10	3200
Propionitrile	SW -846-8000	GAR	7/10-11/98	10	101
Ally Alcohol	SW-846-8000	GAR	7/10-11/98	10	68
Pyridine	SW -846-8000	GAR	7/10-11/98	10	22 ⁴
Fumaronitrile	SW -846-8000	GAR	7/10-11/98	10	BDL
Succinonitrile	SW -846-8000	GAR	7/10-11/98	50	3800
Formic Acid ¹	HPLC	GAR	7/7/98	10	188
Acetic Acid ¹	HPLC	GAR	7/7/98	10	640
Acrylamide	SW -846-8310	GAR	7/8/98	1	139
Acrylic Acid ¹	SW -846-8310	GAR	7/8/98	1	430

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

² These data suffered from calibration and analytical difficulties involving poor recovery of low level and closing check standards. Alternative methods are being investigated.

³ These results are by external standard UVD-HPLC with 5 point and opening and closing check standard.

⁴ Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) check standards. Alternative methods are being investigated.

CYTEC

To: Vincent Diaz

Date: July 13, 1998

Location: Fortier

Copy to: A. Junker
J. Schneller
P. Savoy
S. Foret

From: Guy C.A. Rich

Location: Fortier

Subject: Injected Waste Analysis.

Reference: G. Rich, Rm. 9 DWMA9708.SEQ 42-47, MMEX9806.SEQ 001-015, DWAM9708.SEQ 205-212, DWRR9512.WB2.. Rm. 4 WWCBA229.D – WWCBA243.D. C. J. Wusnack
Rm. 14 MSLog 6/11/98 – 6/19/98.

File Name: 98Q2 Quarterly Deep Wells 5-98.doc.

Contributors: C. J. Wusnack, M. Callahan.

SAMPLE HISTORY

Comprehensive knowledge of the character and composition of these materials is necessary for environmental and tax purposes prior to deep well injection.

SAMPLE DESCRIPTION

Analysis was performed on composites of samples collected on June 3, 5, and 8, 1998.

Benzene, toluene, and acetaldehyde on all samples and acetone and MMA on the Waste Acid in general accordance with SW-846-8260B.

Acetone, acrylonitrile, acetonitrile, propionitrile, methanol, methyl methacrylate (MMA), fumaronitrile, succinonitrile, allyl alcohol, and pyridine in general accordance with SW-846-8000.

Acrylamide and acrylic acid by modified SW-846-8310

Acetic acid¹, formic acid¹, and methacrylic acid¹ by HPLC.

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

RESULTS

Analytical and Quality Assurance (QA) data are tabulated below. BDL indicates Below Detection it.

RESULTS - Waste Acid Analysis

Sample Location:

Analyte	Method	Analyst	Sampling Date	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetone	SW-846-8260B	CJW	6/8/98	6/11/98	<10	110
Methanol	SW -846-8000	GAR	6/8/98	6/25/98 ²	<100	4800
MMA	SW-846-8260B	CJW	6/8/98	6/11/98	<100	440
Toluene	SW-846-8260B	CJW	6/8/98	6/11/98	<0.050	BDL
Methacrylic acid ¹	HPLC	GAR	6/8/98	6/11/98	<10	1740
Benzene	SW-846-8260B	CJW	6/8/98	6/11/98	<0.050	BDL
Acetaldehyde	SW-846-8260B	CJW	6/8/98	6/11/98	<1	BDL

RESULTS - Waste Water Analysis

Sample Location:

Analyte	Method	Analyst	Sampling Date	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetone	SW -846-8000	GAR	6/8/98	6/9-10/98	<15	BDL
Acrylamide	SW -846-8310	GAR	6/8/98	6/10/98	<1	710
Formic Acid ¹	SW -846-8310	GAR	6/8/98	6/10/98	<1	3600
Acrylonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<15	97
Acetonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<15	BDL
Propionitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<15	97
Methanol	SW -846-8000	GAR	6/8/98	6/9-10/98	<15	BDL
MMA	SW -846-8000	GAR	6/8/98	6/9-10/98	<15	BDL
Toluene	SW-846-8260B	CJW	6/8/98	6/19/98	<0.050	BDL
Formic Acid ¹	HPLC	GAR	6/8/98	6/11/98	<10	480
Acetic Acid ¹	HPLC	GAR	6/8/98	6/11/98	<10	790
Fumaronitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<10	1010
Succinonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<50	63
Benzene	SW-846-8260B	CJW	6/8/98	6/19/98	<0.050	BDL
Pyridine ³	SW -846-8000	GAR	6/8/98	6/9-10/98	<10	184
Acetaldehyde	SW-846-8260B	CJW	6/8/98	6/19/98	<0.50	34
Ally Alcohol	SW-846-8000	GAR	6/8/98	6/9-10/98	<10	BDL

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

² 17 days after compositing.

³ Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) and low level standards. Alternative methods are being investigated.

RESULTS - Tank 500 (MET) Analysis

Sample Location:

Analyte	Method	Analyst	Sampling Date	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetone	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	790
Acrylamide	SW -846-8310	GAR	6/8/98	6/10/98	<1	250
Acrylic Acid ¹	SW -846-8310	GAR	6/8/98	6/10/98	<1	250
Acrylonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	43
Acetonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	10600
Propionitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	590
Methanol	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	550
MMA	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	BDL
Toluene	SW-846-8260B	CJW	6/8/98	6/19/98	<0.050	1.5
Formic Acid ¹	HPLC	GAR	6/8/98	6/11/98	<10	164
Acetic Acid ¹	HPLC	GAR	6/8/98	6/11/98	<10	470
Fumaronitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<10	BDL
Succinonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<50	2800
Benzene	SW-846-8260B	CJW	6/8/98	6/19/98	<0.050	BDL
Pyridine	SW -846-8000	GAR	6/8/98	6/9-10/98	<20	BDL
Acetaldehyde	SW-846-8260B	CJW	6/8/98	6/19/98	<0.50	210
Ally Alcohol	SW-846-8000	GAR	6/8/98	6/9-10/98	<10	67

RESULTS - Recovery Column Bottoms (RCB) Analysis

Sample Location:

Analyte	Method	Analyst	Sampling Date	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetone	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	BDL
Acrylamide	SW -846-8310	GAR	6/8/98	6/10/98	<1	21
Acrylic Acid ¹	SW -846-8310	GAR	6/8/98	6/10/98	<1	420
Acrylonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	800
Acetonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	BDL
Propionitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	BDL
Methanol	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	BDL
MMA	SW -846-8000	GAR	6/8/98	6/9-10/98	<30	BDL
Toluene	SW-846-8260B	CJW	6/8/98	6/19/98	<0.050	BDL
Formic Acid ¹	HPLC	GAR	6/8/98	6/11/98	<10	88
Acetic Acid ¹	HPLC	GAR	6/8/98	6/11/98	<10	630
Fumaronitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<10	79
Succinonitrile	SW -846-8000	GAR	6/8/98	6/9-10/98	<50	7600
Benzene	SW-846-8260B	CJW	6/8/98	6/19/98	<0.050	BDL
Pyridine ³	SW -846-8000	GAR	6/8/98	6/9-10/98	<10	12
Acetaldehyde	SW-846-8260B	CJW	6/8/98	6/19/98	<0.50	BDL
Ally Alcohol	SW-846-8000	GAR	6/8/98	6/9-10/98	<10	BDL

³ Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) and low level standards. Alternative methods are being investigated.

QA Data Waste Water Column Bottoms

Analyte	Analyst	Initial ppm	Duplicate ppm	Recovery Percent
ylamide	GAR	710	720	107
ylic Acid ¹	GAR	3600	3700	104

QA Data - Waste Acid Composite Analysis

Analyte	Analyst	Initial ppm	Duplicate ppm	Recovery Percent
Methanol	GAR	4800	4600	-
MMA	GAR	320	340	-
Methacrylic acid ¹	GAR	1740	1810	96

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

CYTEC

To: Vincent Diaz

Date: June 22, 1998

Location: Fortier

Copy to: J. Schneller
P. Mikesell
A. Junker
P. Savoy
S. Foret

From: Guy C.A. Rich

Location: Fortier

Subject: Injected Waste Analysis.

Reference:

File Name: C:\6WINWORD\ENV\WWW 6-98.DOC

Contributors: C. J. Wusnack.

SAMPLE HISTORY

Comprehensive knowledge of the character and composition of this material is necessary for environmental and tax purposes prior to deep well injection. Waste Water and MET (T-500), previously analyzed quarterly, is now analyzed on a weekly basis to better monitor how the composition varies with time.

SAMPLE DESCRIPTION

Analysis was performed on Waste Water Samples collected on 5/16/98, 5/23/98, 5/30/98, and 6/6/98 and on a MET Sample collected on 5/26/98.

Acetaldehyde by purge and trap gas chromatography mass spectroscopy (P&T GC-MS) in accordance with SW-846-8260B.

Acetone, acrylonitrile, acetonitrile, propionitrile, methanol, fumaronitrile, succinonitrile, allyl alcohol, and pyridine in general accordance with SW-846-8000.

Acrylamide and acrylic acid by modified SW-846-8310

Acetic acid¹, formic acid¹, and methacrylic acid¹ by HPLC.

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

RESULTS

Analytical and Quality Assurance (QA) data are tabulated below. BDL indicates Below Detection Limit. All results below are in ppm (ug/g).

Monthly Summary Table for Weekly Waste Water Samples

Analyte	5/16/98 ppm	5/23/98 ppm	5/30/98 ppm	6/6/98 ppm
7 Formaldehyde	100	38	58	50
Acetone	BDL	BDL	BDL	BDL
Methanol	24	29	28	BDL
Acrylonitrile	6900	210	45	70
Acetonitrile	107	34	27	BDL
Propionitrile	184	106	141	139
Ally Alcohol	29	34	24	BDL
Pyridine	220	220	182 ²	197 ²
Fumaronitrile	950	1070	1030	990
Succinonitrile	63	130	105	112
Formic Acid ¹	370	510	740	500
Acetic Acid ¹	710	680	500	600
Acrylamide	840	830	750	740
Acrylic Acid ¹	4600	4400	3900	4200

Monthly Summary Table for Weekly MET T-500 Samples

Analyte	5/26/98 ppm
Acetaldehyde	19
Benzene	BDL
Bluene	4.5
Acetone	600
Methanol	390
Acrylonitrile	BDL
Acetonitrile	2000
Propionitrile	70
Ally Alcohol	30
Pyridine	10
Fumaronitrile	20
Succinonitrile	2300
Formic Acid ¹	160
Acetic Acid ¹	350
Acrylamide	157
Acrylic Acid ¹	230

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent

² Closing check standard exceeded 15% deviation from calibration. Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) and low level standards. Alternative methods are being investigated.

Weekly Waste Water Sample Collected on 5/16/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	5/20/98	0.50	100
Acetone	SW -846-8000	GAR	5/28/98	10	BDL
Methanol	SW -846-8000	GAR	5/28/98	10	24
Acrylonitrile	SW -846-8000	GAR	5/28/98	10	6900
Acetonitrile	SW -846-8000	GAR	5/28/98	10	107
Propionitrile	SW -846-8000	GAR	5/28/98	10	184
Ally Alcohol	SW-846-8000	GAR	5/28/98	10	29
Pyridine	SW -846-8000	GAR	5/28/98	10	220
Fumaronitrile	SW -846-8000	GAR	5/28/98	10	950
Succinonitrile	SW -846-8000	GAR	5/28/98	50	63
Formic Acid ¹	HPLC	GAR	5/27/98	10	370
Acetic Acid ¹	HPLC	GAR	5/27/98	10	710
Acrylamide	SW -846-8310	GAR	5/26/98	1	840
Acrylic Acid ¹	SW -846-8310	GAR	5/26/98	1	4600

Weekly Waste Water Sample Collected on: 5/23/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	5/26/98	0.50	38
Acetone	SW -846-8000	GAR	5/28/98	10	BDL
Methanol	SW -846-8000	GAR	5/28/98	10	29
Acrylonitrile	SW -846-8000	GAR	5/28/98	10	210
Acetonitrile	SW -846-8000	GAR	5/28/98	10	34
Propionitrile	SW -846-8000	GAR	5/28/98	10	106
Ally Alcohol	SW-846-8000	GAR	5/28/98	10	34
Pyridine	SW -846-8000	GAR	5/28/98	10	220
Fumaronitrile	SW -846-8000	GAR	5/28/98	10	1070
Succinonitrile	SW -846-8000	GAR	5/28/98	50	130
Formic Acid ¹	HPLC	GAR	5/27/98	10	510
Acetic Acid ¹	HPLC	GAR	5/27/98	10	680
Acrylamide	SW -846-8310	GAR	5/26/98	1	830
Acrylic Acid ¹	SW -846-8310	GAR	5/26/98	1	4400

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent

² Closing check standard exceeded 15% deviation from calibration. Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) and low level standards. Alternative methods are being investigated.

Weekly Waste Water Sample Collected on: 5/30/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
acetaldehyde	SW-846-8260B	CJW	6/11/98	0.50	58
acetone	SW -846-8000	GAR	6/9/98	10	BDL
Methanol	SW -846-8000	GAR	6/9/98	10	28
Acrylonitrile	SW -846-8000	GAR	6/9/98	10	45
Acetonitrile	SW -846-8000	GAR	6/9/98	10	27
Propionitrile	SW -846-8000	GAR	6/9/98	10	141
Ally Alcohol	SW-846-8000	GAR	6/9/98	10	24
Pyridine	SW -846-8000	GAR	6/9/98	10	182 ²
Fumaronitrile	SW -846-8000	GAR	6/9/98	10	1030
Succinonitrile	SW -846-8000	GAR	6/9/98	50	105
Formic Acid ¹	HPLC	GAR	6/11/98	10	740
Acetic Acid ¹	HPLC	GAR	6/11/98	10	500
Acrylamide	SW -846-8310	GAR	6/9/98	1	750
Acrylic Acid ¹	SW -846-8310	GAR	6/9/98	1	3900

Weekly Waste Water Sample Collected on: 6/6/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	6/11/98	0.50	50
Acetone	SW -846-8000	GAR	6/9/98	10	BDL
Methanol	SW -846-8000	GAR	6/9/98	10	BDL
Acrylonitrile	SW -846-8000	GAR	6/9/98	10	70
Acetonitrile	SW -846-8000	GAR	6/9/98	10	BDL
Propionitrile	SW -846-8000	GAR	6/9/98	10	139
Ally Alcohol	SW-846-8000	GAR	6/9/98	10	BDL
Pyridine	SW -846-8000	GAR	6/9/98	10	197 ²
Fumaronitrile	SW -846-8000	GAR	6/9/98	10	990
Succinonitrile	SW -846-8000	GAR	6/9/98	50	112
Formic Acid ¹	HPLC	GAR	6/11/98	10	500
Acetic Acid ¹	HPLC	GAR	6/11/98	10	600
Acrylamide	SW -846-8310	GAR	6/9/98	1	740
Acrylic Acid ¹	SW -846-8310	GAR	6/9/98	1	4200

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent

² Closing check standard exceeded 15% deviation from calibration. Pyridine FID-GC analysis suffered from recovery problems with post analysis (closing) and low level standards. Alternative methods are being investigated.

Weekly MET T-500 Sample Collected on: 5/26/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Formaldehyde	SW-846-8260B	CJW	5/26/98	0.50	19
Benzene	SW-846-8260B	CJW	5/26/98	1	BDL
Toluene	SW-846-8260B	CJW	5/26/98	1	4.5
Acetone	SW -846-8000	GAR	5/28/98	10	600
Methanol	SW -846-8000	GAR	5/28/98	10	390
Acrylonitrile	SW -846-8000	GAR	5/28/98	10	BDL
Acetonitrile	SW -846-8000	GAR	5/28/98	10	2000
Propionitrile	SW -846-8000	GAR	5/28/98	10	70
Ally Alcohol	SW-846-8000	GAR	5/28/98	10	30
Pyridine	SW -846-8000	GAR	5/28/98	10	10
Fumaronitrile	SW -846-8000	GAR	5/28/98	10	20
Succinonitrile	SW -846-8000	GAR	5/28/98	50	2300
Formic Acid ¹	HPLC	GAR	5/27/98	10	160
Acetic Acid ¹	HPLC	GAR	5/27/98	10	350
Acrylamide	SW -846-8310	GAR	5/26/98	1	157
Acrylic Acid ¹	SW -846-8310	GAR	5/26/98	1	230

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent

CYTEC

To: Vincent Diaz

Date: June 19, 1998

Location: Fortier

Copy to: J. Schneller
P. Mikesell
A. Junker
P. Savoy
S. Foret

From: Guy C.A. Rich

Location: Fortier

Subject: Injected Waste Analysis.

Reference: MMEX9708.SEQ 604-633. DWAM9708.SEQ 154-185. WWCBA180.D -
WWCBA204.D.

File Name: C:\6WINWORD\ENV\WWW 4-98.DOC

Contributors: C. J. Wusnack.

SAMPLE HISTORY

Comprehensive knowledge of the character and composition of this material is necessary for environmental and tax purposes prior to deep well injection. Waste Water and MET (T-500), previously analyzed quarterly, is now analyzed on a weekly basis to better monitor how the composition varies with time.

SAMPLE DESCRIPTION

Analysis was performed on Waste Water Samples collected on 4/4/98, 4/18/98, 5/2/98, and 5/9/98 and MET Samples collected on 4/18/98 and 5/11/98.

Acetaldehyde by purge and trap gas chromatography mass spectroscopy (P&T GC-MS) in accordance with SW-846-8260B.

Acetone, acrylonitrile, acetonitrile, propionitrile, methanol, fumaronitrile, succinonitrile, allyl alcohol, and pyridine in general accordance with SW-846-8000.

Acrylamide and acrylic acid by modified SW-846-8310

Acetic acid¹, formic acid¹, and methacrylic acid¹ by HPLC.

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent.

Weekly Waste Water Sample Collected on: 4/4/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	4/14/98	0.50	97
Acetone	SW -846-8000	GAR	4/16/98	10	BDL
Methanol	SW -846-8000	GAR	4/16/98	10	14
Acrylonitrile	SW -846-8000	GAR	4/16/98	10	86
Acetonitrile	SW -846-8000	GAR	4/16/98	10	43
Propionitrile	SW -846-8000	GAR	4/16/98	10	77
Ally Alcohol	SW-846-8000	GAR	4/16/98	10	BDL
Pyridine	SW -846-8000	GAR	4/16/98	10	110
Fumaronitrile	SW -846-8000	GAR	4/16/98	10	520
Succinonitrile	SW -846-8000	GAR	4/16/98	50	139
Formic Acid ¹	HPLC	GAR	4/16/98	10	1530
Acetic Acid ¹	HPLC	GAR	4/16/98	10	1000
Acrylamide	SW -846-8310	GAR	4/16/98	1	670
Acrylic Acid ¹	SW -846-8310	GAR	4/16/98	1	2400

Weekly Waste Water Sample Collected on: 4/18/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	5/1/98	0.50	81
Acetone	SW -846-8000	GAR	4/30/98-5/1/98	10	BDL
Methanol	SW -846-8000	GAR	4/30/98-5/1/98	10	26
Acrylonitrile	SW -846-8000	GAR	4/30/98-5/1/98	10	1960
Acetonitrile	SW -846-8000	GAR	4/30/98-5/1/98	10	53
Propionitrile	SW -846-8000	GAR	4/30/98-5/1/98	10	440
Ally Alcohol	SW-846-8000	GAR	4/30/98-5/1/98	10	26
Pyridine	SW -846-8000	GAR	4/30/98-5/1/98	10	210 ²
Fumaronitrile	SW -846-8000	GAR	4/30/98-5/1/98	10	1280 ²
Succinonitrile	SW -846-8000	GAR	4/30/98-5/1/98	50	91 ²
Formic Acid ¹	HPLC	GAR	4/29/98	10	680
Acetic Acid ¹	HPLC	GAR	4/29/98	10	1810
Acrylamide	SW -846-8310	GAR	4/30/98	1	900
Acrylic Acid ¹	SW -846-8310	GAR	4/30/98	1	5500

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent

² Closing check standard exceeded 15% deviation from calibration.

³ Analyzed past 2 week holding time.

Weekly MET %-500 Sample Collected on: 4/18/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	5/1/98	0.50	17
Benzene	SW-846-8260B	CJW	5/1/98	1	BDL
Toluene	SW-846-8260B	CJW	5/1/98	1	6.0
Acetone	SW -846-8000	GAR	4/98/98-5/1/98	10	790
Methanol	SW -846-8000	GAR	4/98/98-5/1/98	10	500
Acrylonitrile	SW -846-8000	GAR	4/98/98-5/1/98	10	19
Acetonitrile	SW -846-8000	GAR	4/98/98-5/1/98	10	3700
Propionitrile	SW -846-8000	GAR	4/98/98-5/1/98	10	63
Ally Alcohol	SW-846-8000	GAR	4/98/98-5/1/98	10	50
Pyridine	SW -846-8000	GAR	4/98/98-5/1/98	10	55 ²
Fumaronitrile	SW -846-8000	GAR	4/98/98-5/1/98	10	10 ²
Succinonitrile	SW -846-8000	GAR	4/98/98-5/1/98	50	3600 ²
Formic Acid ¹	HPLC	GAR	4/29/98	10	171
Acetic Acid ¹	HPLC	GAR	4/29/98	10	600
Acrylamide	SW -846-8310	GAR	4/30/98	1	550
Acrylic Acid ¹	SW -846-8310	GAR	4/30/98	1	430

Weekly MET %-500 Sample Collected on: 5/11/98

Analyte	Method	Analyst	Analysis Date	Detection Limit, ppm	Concentration ppm w/w
Acetaldehyde	SW-846-8260B	CJW	5/22/98	0.50	15
Benzene	SW-846-8260B	CJW	5/22/98	1	BDL
Toluene	SW-846-8260B	CJW	5/22/98	1	6.0
Acetone	SW -846-8000	GAR	5/11/98	10	680
Methanol	SW -846-8000	GAR	5/11/98	10	430
Acrylonitrile	SW -846-8000	GAR	5/11/98	10	115
Acetonitrile	SW -846-8000	GAR	5/11/98	10	2900
Propionitrile	SW -846-8000	GAR	5/11/98	10	60
Ally Alcohol	SW-846-8000	GAR	5/11/98	10	33
Pyridine	SW -846-8000	GAR	5/11/98	10	86 ²
Fumaronitrile	SW -846-8000	GAR	5/11/98	10	14 ²
Succinonitrile	SW -846-8000	GAR	5/11/98	50	3300 ²
Formic Acid ¹	HPLC	GAR	5/15/98	10	290
Acetic Acid ¹	HPLC	GAR	5/15/98	10	490
Acrylamide	SW -846-8310	GAR	5/11/98	1	440
Acrylic Acid ¹	SW -846-8310	GAR	5/11/98	1	340

¹ The acid and its salts expressed as the acid. Actual acid concentration is pH dependent

² Closing check standard exceeded 15% deviation from calibration.

**CYTEC INDUSTRIES
WESTWEGO PLANT
ANNUAL RCRA CC REPORTS
JANUARY-DECEMBER 1997**

Furmanite F.E.I.P
Inspection Detail History

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97
from the beginning tag to the last tag

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : OREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE
SubArea : CC RCRA CC

Tag	Typ	Size	Product	Ser	Location	Date	PPM	First Attempt	Repair	PPMINS	Status	Explanation
00000S0001	VNT	12.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0002	A	10.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0003	A	16.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0004	A	6.00		G	TOP OF MET 1 TANK	12/02/97	0	0				
00000S0005	A	2.00		G	TOP OF MET 1 TANK	12/02/97	0	0				
00000S0006	V	1.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0006-1	A	1.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0006-0	A	1.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0010	SC	0.25		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0023	A	24.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0024	A	10.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0025	A	10.00		G	MET 1 TOP OF TANK	12/02/97	0	0				
00000S0029	VNT	12.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0030	A	10.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0031	A	16.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0032	A	8.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0033	A	2.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0034	V	1.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0034-1	A	1.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0034-0	A	1.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0045	A	8.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0046	A	3.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0053	A	8.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0054	A	24.00		G	MET 2 TOP OF TANK	12/02/97	0	0				
00000S0129	A	8.00		G	401B PRIMARY FILTER	12/02/97	0	0				
00000S0130	A	8.00		G	401B PRIMARY FILTER	12/02/97	0	0				
00000S0131	A	8.00		G	401A PRIMARY FILTER	12/02/97	0	0				
00000S0132	A	8.00		G	401A PRIMARY FILTER	12/02/97	0	0				
00000S0157	A	8.00		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0158	A	24.00		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0159	SC	1.00		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0160	SC	1.00		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0161	A	3.00		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0162	A	3.00		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0163	SC	0.75		G	100-5A NSB FILTER	12/02/97	0	0				

Furmanite F.E.I.P
Inspection Detail History

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97
from the beginning tag to the last tag

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : DREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE
SubArea : CC RCRA CC

Tag	Typ	Size	Product	Ser	Location	Date	PPM	First Attempt	Repair	PPHINS	Status	Explanation
00000S0164	SC	0.75		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0165	V	0.75		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0165-1	SC	0.75		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0166	V	0.75		G	100-5A NSB FILTER	12/02/97	0	0				
00000S0167	A	8.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0168	A	24.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0169	SC	1.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0170	SC	1.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0171	SC	1.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0172	SC	1.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0173	SC	1.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0174	A	3.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0175	A	3.00		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0176	SC	0.50		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0177	V	0.50		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0177-1	SC	0.50		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0178	SC	0.50		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0179	SC	0.50		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0180	V	0.50		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0180-1	SC	0.50		G	100-5B NSB FILTER	12/02/97	0	0				
00000S0181	A	8.00		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0182	A	24.00		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0183	SC	1.00		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0184	SC	1.00		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0185	SC	1.00		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0186	SC	0.75		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0187	A	3.00		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0188	A	3.00		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0189	SC	0.50		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0190	SC	0.50		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0191	V	0.00		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0191-1	SC	0.50		G	100-5C NSB FILTER	12/17/97	0	0				
00000S0192	SC	0.50		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0193	SC	0.50		G	100-5C NSB FILTER	12/02/97	0	0				
00000S0194	V	0.50		G	100-5C NSB FILTER	12/02/97	0	0				

Furmanite F.E.I.P
Inspection Detail History

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97
from the beginning tag to the last tag

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : OREY TANNER

Unit : 0002 HAZARDOUS WASTE

SubArea : CC RCRA CC

Telephone : 504-431-6247

Tag	Typ Size	Product	Ser Location	Date	PPM	First Attempt	Repair PPHINS	Status	Explanation
00000S0194-I SC	0.50		G NSB FILTER 100-5C	12/02/97	0	0			
00000S0195 TT	96.00		G F401A TOP	12/02/97	0	0			
00000S0196 TT	96.00		G F401B TOP	12/02/97	0	0			
00000S0197 TT	96.00		G F401C TOP	12/02/97	0	0			
00000S0198 TT	96.00		G F401D TOP	12/02/97	0	0			
00000S0199 A	24.00		G F401D TOP	12/02/97	0	0			
00000S0200 A	8.00		G F401D TOP	12/02/97	0	0			
00000S0201 A	24.00		G F401C TOP	12/02/97	0	0			
00000S0202 A	8.00		G F401C TOP	12/02/97	0	0			
00000S0203 A	12.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0204 A	12.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0205 A	6.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0206 V	1.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0206-Q SC	1.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0207 A	6.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0208 A	0.50		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0209 A	6.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0210 A	8.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0211 VNT	24.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0212 A	12.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0213 V	1.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0214 A	2.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0215 A	8.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0216 VNT	6.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0217 SC	1.50		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0218 SC	1.50		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0219 TT	0.00		G T-500 TOP OF MET INJ. TANK	12/02/97	0	0			
00000S0221 R	6.00		G TOP OF N-BW TANK	12/02/97	0	0			
00000S0222 A	3.00		G TOP OF N-BW TANK	12/02/97	0	0			
00000S0223 A	3.00		G TOP OF N-BW TANK	12/02/97	0	0			
00000S0224 A	6.00		G TOP OF N-BW TANK	12/02/97	0	0			
00000S0225 SC	1.00		G TOP OF N-BW TANK	12/02/97	0	0			
00000S0226 A	8.00		G TOP OF N-BW TANK	12/02/97	0	0			
00000S0227 A	2.00		G TOP OF N-BW TANK	12/02/97	0	0			
00000S0228 VNT	4.00		G TOP OF N-BW TANK	12/02/97	0	0			

Furmanite F.E.I.-P
Inspection Detail History

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97
from the beginning tag to the last tag

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : GREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE

SubArea : CC RCRA CC

Tag	Typ Size	Product	Ser Location	Date	PPM	First Attempt	Repair PPMINS	Status	Explanation
00000S0229	VNT	36.00	G TOP OF N-BW TANK	12/02/97	0	0			
00000S0230	A	12.00	G TOP OF N-BW TANK	12/02/97	0	0			
00000S0231	A	12.00	G TOP OF N-BW TANK	12/02/97	0	0			
00000S0232	V	1.00	G TOP OF N-BW TANK	12/02/97	0	0			
00000S0232-O	A	1.00	G TOP OF N-BW TANK	12/02/97	0	0			
00000S0233	A	2.00	G TOP OF N-BW TANK	12/02/97	0	0			
00000S0234	TT	0.00	G TOP OF N-BW TANK	12/02/97	0	0			
00000S0235	A	8.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0236	VNT	36.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0237	R	8.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0238	A	3.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0239	A	3.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0240	A	8.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0241	SC	1.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0242	A	2.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0243	VNT	4.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0244	A	2.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0245	A	12.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0246	A	12.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0247	V	1.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0247-O	A	1.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0248	TT	0.00	G TOP OF S-BW TANK	12/02/97	0	0			
00000S0249	TT	0.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0250	A	10.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0251	V	1.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0252	A	10.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0253	A	4.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0254	A	4.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0255	VNT	18.00	G PRIMARY FF TANK TA-404	12/17/97	0	0			
00000S0256	SC	2.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0257	SC	2.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0258	A	10.00	G PRIMARY FF TANK TA-404	12/17/97	0	0			
00000S0259	A	4.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0260	V	1.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0261	A	4.00	G PRIMARY FF TANK TA-404	12/02/97	0	0			

Furmanite F.E.I.P
Inspection Detail History

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97
from the beginning tag to the last tag

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : OREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE
SubArea : CC RCRA CC

Tag	Type	Size	Product	Ser	Location	Date	PPM	First Attempt	Repair PHINS	Status	Explanation
00000S0262	VNT	36.00			G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0263	SC	2.00			G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0264	SC	2.00			G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0265	SC	2.00			G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0266	A	4.00			G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0267	SC	4.00			G PRIMARY FF TANK TA-404	12/02/97	0	0			
00000S0280	A	8.00			G MF-307 TOP	12/02/97	0	0			
00000S0281	V	8.00			G MF-307 TOP	12/02/97	0	0			
00000S0281-I	A	8.00			G MF-307 TOP	12/02/97	0	0			
00000S0281-O	A	8.00			G MF-307 TOP	12/02/97	0	0			
00000S0282	R	3.00			G MF-307 TOP	12/02/97	0	0			
00000S0283	SC	2.00			G MF-307 TOP	12/02/97	0	0			
00000S0284	VNT	24.00			G MF-307 TOP	12/02/97	0	0			
00000S0285	SC	1.50			G MF-307 TOP	12/02/97	0	0			
00000S0286	SC	2.00			G MF-307 TOP	12/02/97	0	0			
00000S0287	SC	1.50			G MF-307 TOP	12/02/97	0	0			
00000S0288	A	10.00			G MF-307 TOP	12/02/97	0	0			
00000S0289	V	0.75			G MF-307 TOP	12/02/97	0	0			
00000S0290	A	6.00			G MF-307 TOP	12/02/97	0	0			
00000S0291	V	0.75			G MF-307 TOP	12/02/97	0	0			
00000S0292	A	6.00			G MF-307 TOP	12/02/97	0	0			
00000S0293	A	10.00			G MF-307 TOP	12/02/97	0	0			
00000S0294	A	10.00			G MF-307 TOP	12/02/97	0	0			
00000S0295	A	6.00			G MF-307 TOP	12/02/97	0	0			
00000S0296	A	6.00			G MF-307 TOP	12/02/97	0	0			
00000S0297	A	2.00			G MF-307 TOP	12/02/97	0	0			
00000S0298	TT	0.00			G TA402 TOP OF WMW INJ. TK.	12/02/97	0	0			
00000S0300	A	8.00			G TA402 TOP OF WMW INJ. TK.	12/02/97	0	0			
00000S0302	V	0.75			G TA402 TOP OF WMW INJ. TK.	12/02/97	0	0			
00000S0303	A	3.00			G TA402 TOP OF WMW INJ. TK.	12/02/97	0	0			
00000S0304	A	8.00			G TA402 TOP OF WMW INJ. TK.	12/02/97	0	0			
00000S0305	A	10.00			G TA402 TOP OF WMW INJ. TK.	12/02/97	0	0			
00000S0306	A	10.00			G TA402 TOP OF WMW INJ. TK.	12/02/97	0	0			
00000S0307	A	6.00			G TA402 TOP OF WMW INJ. TK.	12/17/97	0	0			
00000S0308	V	0.75			G TA402 TOP OF WMW INJ. TK.	12/02/97	0	0			

Furmanite F.E.I.P
Inspection Detail History

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97
from the beginning tag to the last tag

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : DREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE

SubArea : CC RCRA CC

Tag	Typ	Size	Product	Ser	Location	Date	PPM	First Attempt	Repair PPHINS	Status	Explanation
00000S0309	A	10.00		G	TA402 TOP OF WW INJ. TK.	12/02/97	0				
00000S0314	A	2.00		G	TA402 TOP OF WW INJ. TK.	12/02/97	0				
00000S0315	TT	0.00		G	MF-307 TOP	12/02/97	0				
00000S0316	R	12.00		G	TOP OF NORTH BW TANK	12/02/97	0				
00000S0317	A	12.00		G	TOP OF NORTH BW TANK	12/02/97	0				
00000S0318	A	1.00		G	TOP OF NORTH BW TANK	12/02/97	0				
00000S0318-I	A	1.00		G	TOP OF NORTH BW TANK	12/02/97	0				
00000S0319	A	6.00		G	TOP OF NORTH BW TANK	12/02/97	0				
00000S0320	A	1.00		G	TOP OF NORTH BW TANK	12/02/97	0				
00000S0321	R	3.00		G	TA-404 TOP	12/02/97	0				
00000S0322	A	8.00		G	TA-404 TOP	12/02/97	0				
00000S0323	A	8.00		G	TA-404 TOP	12/02/97	0				
00000S0324	R	3.00		G	T-500 TOP OF MET TANK	12/02/97	0				
00000S0325	A	8.00		G	T-500 TOP OF MET TANK	12/02/97	0				
00000S0326	A	8.00		G	T-500 TOP OF MET TANK	12/02/97	0				
00000S0327	R	3.00		G	TA-403 TOP OF TANK	12/02/97	0				
00000S0328	A	8.00		G	TOP OF TANK TA-403	12/02/97	0				
00000S0329	A	8.00		G	TA-403 TOP OF TANK	12/02/97	0				
00000S0330	R	3.00		G	TA402 TOP OF WASTE WATER INJECTION TANK	12/02/97	0				
00000S0331	A	8.00		G	TA402 TOP OF WASTE WATER INJECTION TANK	12/02/97	0				
00000S0332	A	8.00		G	TA402 TOP OF WASTE WATER INJECTION TANK	12/02/97	0				
00000S0333	A	10.00		G	T-500 TOP	12/02/97	0				
00000S0334	R	10.00		G	TOP OF S BW TANK	12/02/97	0				
00000S0335	A	16.00		G	TOP OF S BW TANK	12/02/97	0				
00000S0336	V	1.00		G	TOP OF S BW TANK	12/02/97	0				
00000S0336-I	SC	1.00		G	TOP OF S BW TANK	12/02/97	0				
00000S0337	A	8.00		G	TOP OF S BW TANK	12/17/97	0				
00000S0338	A	2.00		G	TOP OF S BW TANK	12/02/97	0				
00000S0338-A	A	2.00		G	TOP OF S BW TANK	12/02/97	0				
00000S0339	A	2.00		G	T-404 TOP	12/02/97	0				
00000S0340	A	3.00		G	T-404 TOP	12/02/97	0				
00000S0341	A	3.00		G	T-404 TOP	12/17/97	0				
00000S0342	A	2.00		G	T-404 TOP	12/02/97	0				
00000S0343	SC	1.00		G	T-404 TOP	12/02/97	0				
00000S0344	A	24.00		G	100-6 TOP OF TANK	12/02/97	0				

Furmanite F.E.I.P
Inspection Detail History

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97
from the beginning tag to the last tag

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : OREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE

SubArea : CC RCRA CC

Tag	Typ	Size	Product	Ser	Location	Date	PPM	First Attempt	Repair	PPHINS	Status	Explanation
00000S0345	R	2.00		G	100-6 TOP OF TANK	12/02/97	0	0				
00000S0346	A	3.00		G	100-6 TOP OF TANK	12/02/97	0	0				
00000S0347	SC	1.00		G	100-6 TOP OF TANK	12/02/97	0	0				
00000S0348	V	1.00		G	100-6 TOP OF TANK	12/02/97	0	0				
00000S0348-1	SC	1.00		G	TOP OF TANK 100-6	12/02/97	0	0				
00000S0348-O	SC	1.00		G	TOP OF TANK 100-6	12/02/97	0	0				
00000S0349	V	1.00		G	100-6 TOP OF TANK	12/02/97	0	0				
00000S0349-1	SC	1.00		G	100-6 TOP OF TANK	12/02/97	0	0				
00000S0349-O	SC	1.00		G	100-6 TOP OF TANK	12/02/97	0	0				
00000S0350	A	2.00		G	TOP OF TANK 100-6	12/02/97	0	0				
00000S0351	R	6.00		G	100-6 TOP OF TANK	12/02/97	0	0				
00000S0352	A	12.00		G	307 TOP OF TANK	12/02/97	0	0				
00000S0353	A	2.00		G	403 TOP OF TANK	12/02/97	0	0				
00000S0354	SC	0.50		G	403 TOP OF TANK	12/02/97	0	0				
00000S0355	A	0.00		G	404 TOP OF TANK	12/02/97	0	0				
00000S0662	TT	0.00		G	100-5C TOP OF NSB FILTER	12/02/97	0	0				
00000S0663	TT	0.00		G	100-5B TOP OF NSB FILTER	12/02/97	0	0				
00000S0664	TT	0.00		G	100-5A TOP OF NSB FILTER	12/02/97	0	0				
00000S0665	TT	0.00		G	MS-505 TOP OF ACETO SURGE TANK	12/02/97	0	0				
00000S0666	TT	0.00		G	TOP OF NSB BW TANK	12/02/97	0	0				
00000S0667	TT	0.00		G	TOP OF T-732 FLUSH WATER	12/02/97	0	0				
00000S0322	TT	0.00		G	TOP OF T-732 FLUSH WATER	12/30/97	0	0				

Furmanite F.E.I.P
Inspection Detail History

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97
from the beginning tag to the last tag

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : OREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE
Subarea : CC RCRA CC

Total FLANGE.....	122
FLANGE Leaking.....	0
% Leaking.....	0.00
Total PRESSURE RELIEF DEVICE.....	11
PRESSURE RELIEF DEVICE Leaking.....	0
% Leaking.....	0.00
Total SCREWED CONNECTORS.....	49
SCREWED CONNECTORS Leaking.....	0
% Leaking.....	0.00
Total TANK TOP.....	17
TANK TOP Leaking.....	0
% Leaking.....	0.00
Total VALVES.....	22
VALVES Leaking.....	0
% Leaking.....	0.00
Total VENT ON TANKS.....	11
VENT ON TANKS Leaking.....	0
% Leaking.....	0.00
Total Components.....	232
Total Leakers.....	0
% Leaking.....	0.00
Total Inspections.....	232

Furmanite F.E.I.P
Daily Leak Report

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections From 01/01/97 To 12/31/97

Site : 003360
Company : CYTEC
Plant : FORTIER PLANT
Contact : OREY TANNER
Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE
SubArea : CC RCRA CC

Initial ACCESSIBLE AN Inspections.....	0
Initial ACCESSIBLE DUAL MECH SEAL Inspections.....	0
ACCESSIBLE AN Inspections.....	0
ACCESSIBLE DUAL MECH SEAL Inspections.....	0
DIFFICULT AN Inspections.....	208
DIFFICULT UTILITIES Inspections.....	24
Total Inspections.....	232
First Repair Attempts - ACCESSIBLE AN.....	0
First Repair Attempts - ACCESSIBLE DUAL MECH SEAL.....	0
Total Components.....	232
Total Leakers.....	0
% Leakers.....	0.00
Total Source Points.....	232
ACCESSIBLE AN Source Points.....	0
ACCESSIBLE DUAL MECH SEAL Source Points.....	0
DIFFICULT AN Source Points.....	208
DIFFICULT UTILITIES Source Points.....	24

Inspector _____ Submitted to _____ Date _____
January 12, 1998 Page 1

Furmanite F.E.I.P
INSPECTION SUMMARY BY COMP.

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97.

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : OREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE

SubArea : CC RCRA CC

Component Type.....: FLANGE

Total Components.....:	122
Total Leaking Components..:	0
Total Inspections.....:	122
Repair Records Generated..:	0
Percent Leakers.....:	0.00

	0 PPM	122
1 -	99 PPM	0
100 -	199 PPM	0
200 -	499 PPM	0
500 -	999 PPM	0
1,000 -	1,999 PPM	0
2,000 -	4,999 PPM	0
5,000 -	9,999 PPM	0
10,000 -	24,999 PPM	0
25,000 -	49,999 PPM	0
50,000 -	74,999 PPM	0
75,000 -	99,999 PPM	0
>	99,999 PPM	0

Component Type.....: PRESSURE RELIEF

Total Components.....:	11
Total Leaking Components..:	0
Total Inspections.....:	11
Repair Records Generated..:	0
Percent Leakers.....:	0.00

	0 PPM	11
1 -	99 PPM	0
100 -	199 PPM	0
200 -	499 PPM	0
500 -	999 PPM	0
1,000 -	1,999 PPM	0
2,000 -	4,999 PPM	0
5,000 -	9,999 PPM	0
10,000 -	24,999 PPM	0
25,000 -	49,999 PPM	0
50,000 -	74,999 PPM	0
75,000 -	99,999 PPM	0
>	99,999 PPM	0

Component Type.....: SCREWED CONNECTO

Total Components.....:	49
Total Leaking Components..:	0
Total Inspections.....:	49
Repair Records Generated..:	0
Percent Leakers.....:	0.00

	0 PPM	49
1 -	99 PPM	0
100 -	199 PPM	0
200 -	499 PPM	0
500 -	999 PPM	0
1,000 -	1,999 PPM	0
2,000 -	4,999 PPM	0
5,000 -	9,999 PPM	0
10,000 -	24,999 PPM	0
25,000 -	49,999 PPM	0
50,000 -	74,999 PPM	0
75,000 -	99,999 PPM	0
>	99,999 PPM	0

Component Type.....: TANK TOP

Total Components.....:	17
Total Leaking Components..:	0
Total Inspections.....:	17
Repair Records Generated..:	0
Percent Leakers.....:	0.00

	0 PPM	17
1 -	99 PPM	0
100 -	199 PPM	0
200 -	499 PPM	0
500 -	999 PPM	0
1,000 -	1,999 PPM	0
2,000 -	4,999 PPM	0
5,000 -	9,999 PPM	0
10,000 -	24,999 PPM	0
25,000 -	49,999 PPM	0
50,000 -	74,999 PPM	0
75,000 -	99,999 PPM	0
>	99,999 PPM	0

Furmanite F.E.I.P
INSPECTION SUMMARY BY COMP.

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

Inspections on or after 01/01/97 and on or before 12/31/97.

Site : 003360

Company : CYTEC

Plant : FORTIER PLANT

Contact : OREY TANNER

Telephone : 504-431-6247

Unit : 0002 HAZARDOUS WASTE

SubArea : CC RCRA CC

Component Type.....: VALVES

Total Components.....:	22
Total Leaking Components..:	0
Total Inspections.....:	22
Repair Records Generated..:	0
Percent Leakers.....:	0.00

Component Type.....: VENT ON TANKS

Total Components.....:	11
Total Leaking Components..:	0
Total Inspections.....:	11
Repair Records Generated..:	0
Percent Leakers.....:	0.00

	0 PPM	22
1 -	99 PPM	0
100 -	199 PPM	0
200 -	499 PPM	0
500 -	999 PPM	0
1,000 -	1,999 PPM	0
2,000 -	4,999 PPM	0
5,000 -	9,999 PPM	0
10,000 -	24,999 PPM	0
25,000 -	49,999 PPM	0
50,000 -	74,999 PPM	0
75,000 -	99,999 PPM	0
>	99,999 PPM	0

	0 PPM	11
1 -	99 PPM	0
100 -	199 PPM	0
200 -	499 PPM	0
500 -	999 PPM	0
1,000 -	1,999 PPM	0
2,000 -	4,999 PPM	0
5,000 -	9,999 PPM	0
10,000 -	24,999 PPM	0
25,000 -	49,999 PPM	0
50,000 -	74,999 PPM	0
75,000 -	99,999 PPM	0
>	99,999 PPM	0

Furmanite F.E.I.P
INSPECTION SUMMARY BY COMP.

ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER 1997

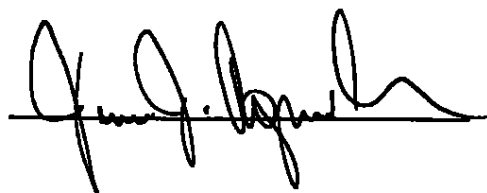
Inspections on or after 01/01/97 and on or before 12/31/97.

Site : 003360
Company : CYTEC
Plant : FORTIER PLANT

Site Totals

Total Components.....:	232
Total Leaking Components.:	0
Total Inspections.....:	232
Repair Records Generated.:	0
Percent Leakers.....:	0.00

THESE ANNUAL RCRA CC REPORTS FOR JANUARY-DECEMBER
1997 ARE TRUE AND CORRECT TO THE BEST OF MY
KNOWLEDGE.

A handwritten signature in black ink, appearing to read 'Furmanite', is written over a horizontal line.

FURMANITE SUPERVISOR
OR REPRESENTATIVE

11032B CEDAR PARK AVE.
BATON ROUGE, LA 70809

OREY TANNER

CYTEC REPRESENTATIVE

10800 RIVER ROAD
WESTWEGO, LA 70094

93054



TO: V. Krishnan
LOCATION: Project Engineering - FO
FROM: M. Hart
LOCATION: Process Engineering - FO
EXTENSION: 6690
SUBJECT: AN WASTE TREATMENT SCRUBBERS
REFERENCE:

DATE: May 12, 1992

COPY TO: S. Ali
P. Knieper

Scrubbers are needed as control devices on five tanks in the AN hazardous waste treatment area. The regulations requiring these controls are expected in final form in November, 1992. The designs completed by Process Engineering in 1989 were modified based on the new tank fill rates after the AN expansion. Attached are the specification sheets for the five tanks. Removable bottom and top heads along with a manhole are required for removing and replacing packing as needed. The scrubber medium to be used is Coag Water. The assumed removal efficiency of the scrubbers was 95%. The liquid distributor for each scrubber should be a Norton Model 845. The hold-down plate and support plates should be a Norton Model 809. Also attached is information from Norton about the distributor and support plate.

If you have any questions, please call me at 6696.

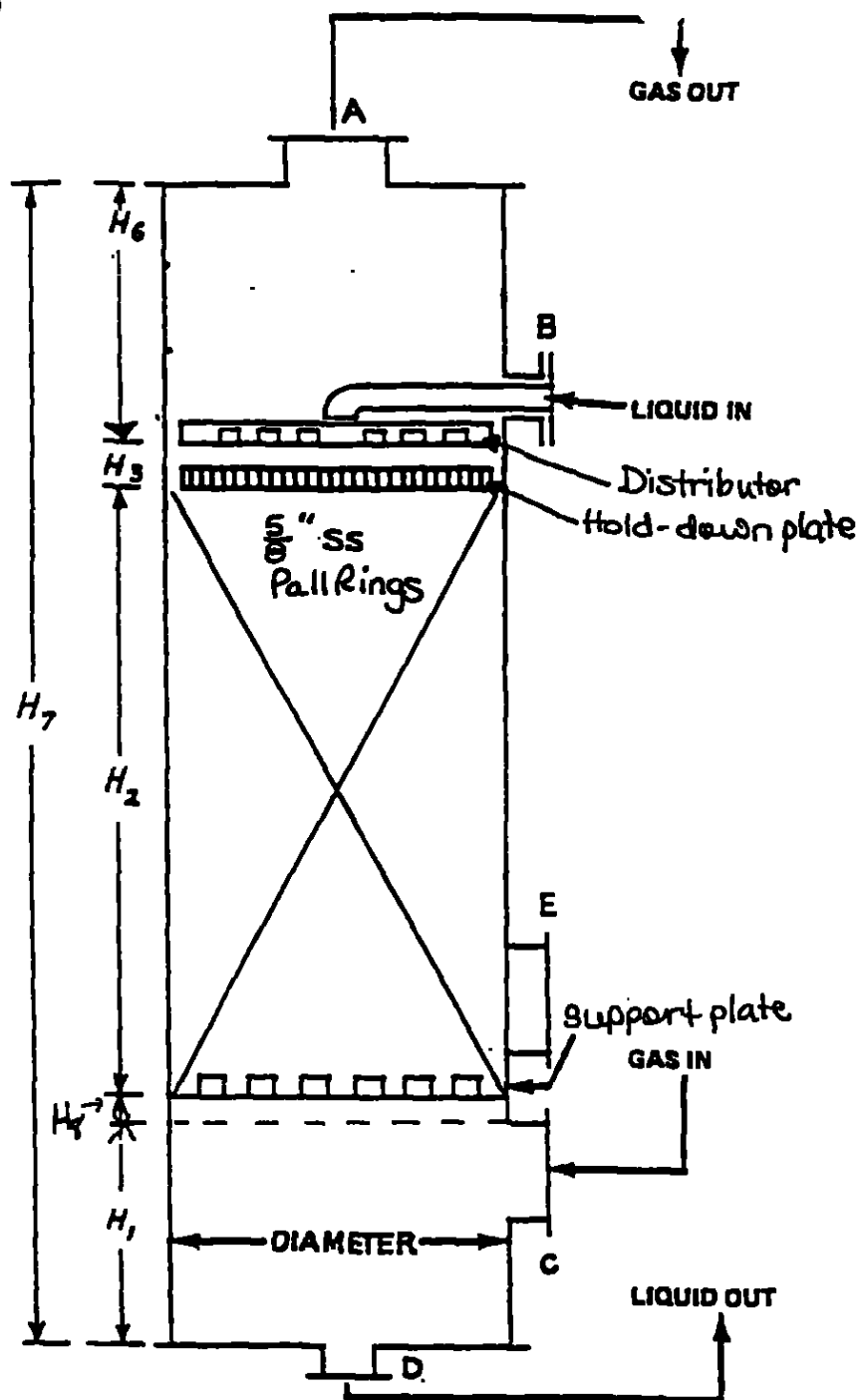
M. R. Hart
M. R. Hart

AN TANK SCRUBBERS

Tank name	Coag H2O Flow to Scrubber (gpm)	Approx. Coag H2O T(deg F)	Vapor to Scrubber or Approx. Tank Fill Rate (gpm)	Vapor In Tank T(deg F)	Packing Height (ft)	Packing Type	Design Vapor Exit Line Size (in)	Scrubber Diameter (in)	Max. Press. Drop (in. H2O/ft)
MET Well Injection Tk	6	100	1200	100	8	5/8" Pall Rings	6	12	0.1
Catalyst Settling Tank	3	90	338	125	12	1" Pall Rings	4	8	0.125
Primary Filter Feed Tk	3	90	355	125	12	1" Pall Rings	4	8	0.125
WW Well Injection Tk	4.5	100	505	140	8	5/8" Pall Rings	6	10	0.1
Secondary Filter Feed Tk	4.5	100	505	150	8	5/8" Pall Rings	6	10	0.1

Scrubber medium: Coag Water
Removal Efficiency: 95%

MET Well Injection Tank



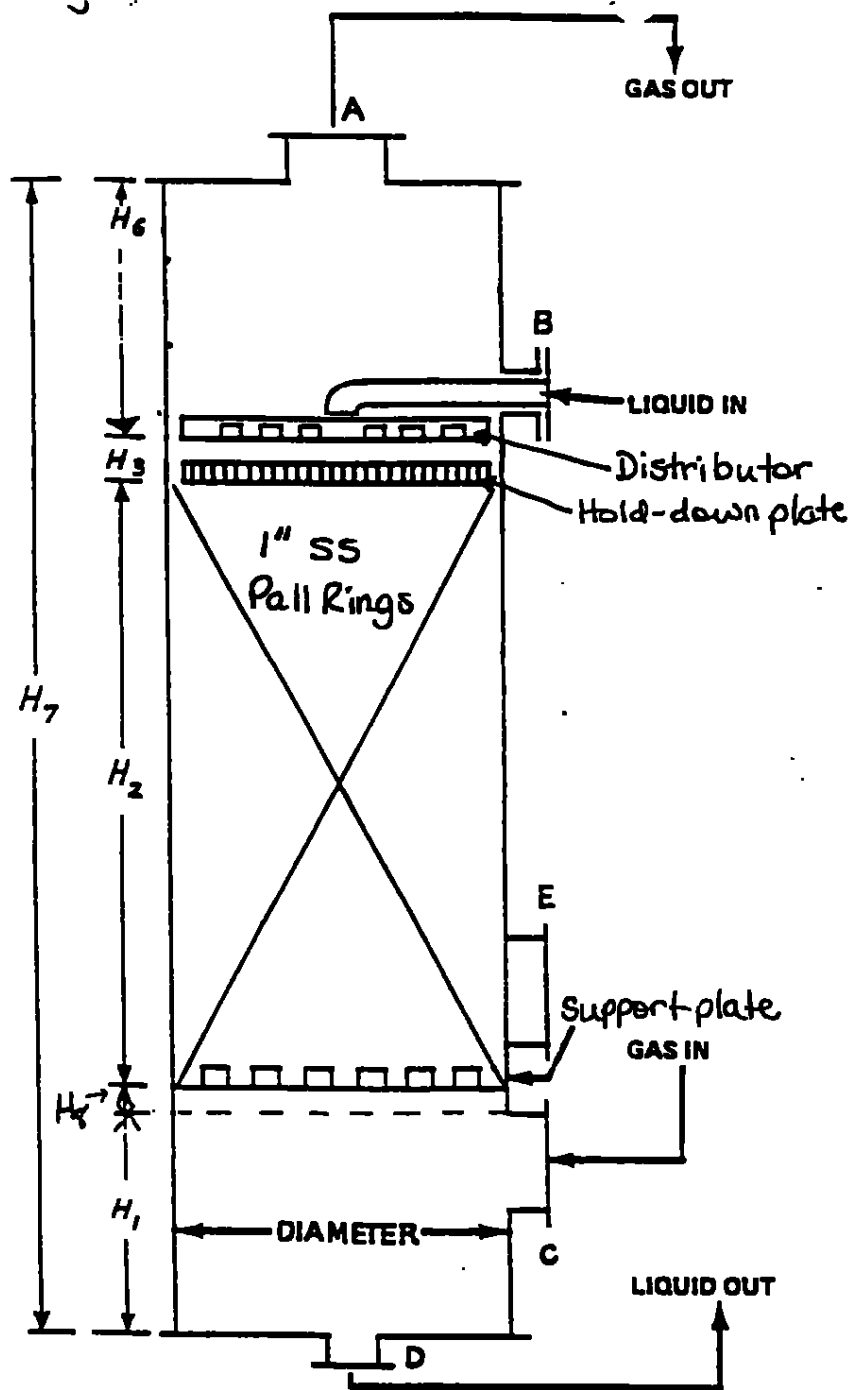
SIZE OF NOZZLES

A 6"
 B 3" ; 1" pipe
 C 6"
 D 2"
 E 12"
 Etc. Diameter = 12"

HEIGHT

H1 18 in.
 H2 8 ft.
 H3 10 in.
 H4 -
 H5 -
 H6 2 ft.
 H7 13 ft.
 H8 8 in.

Catalyst Settling Tank



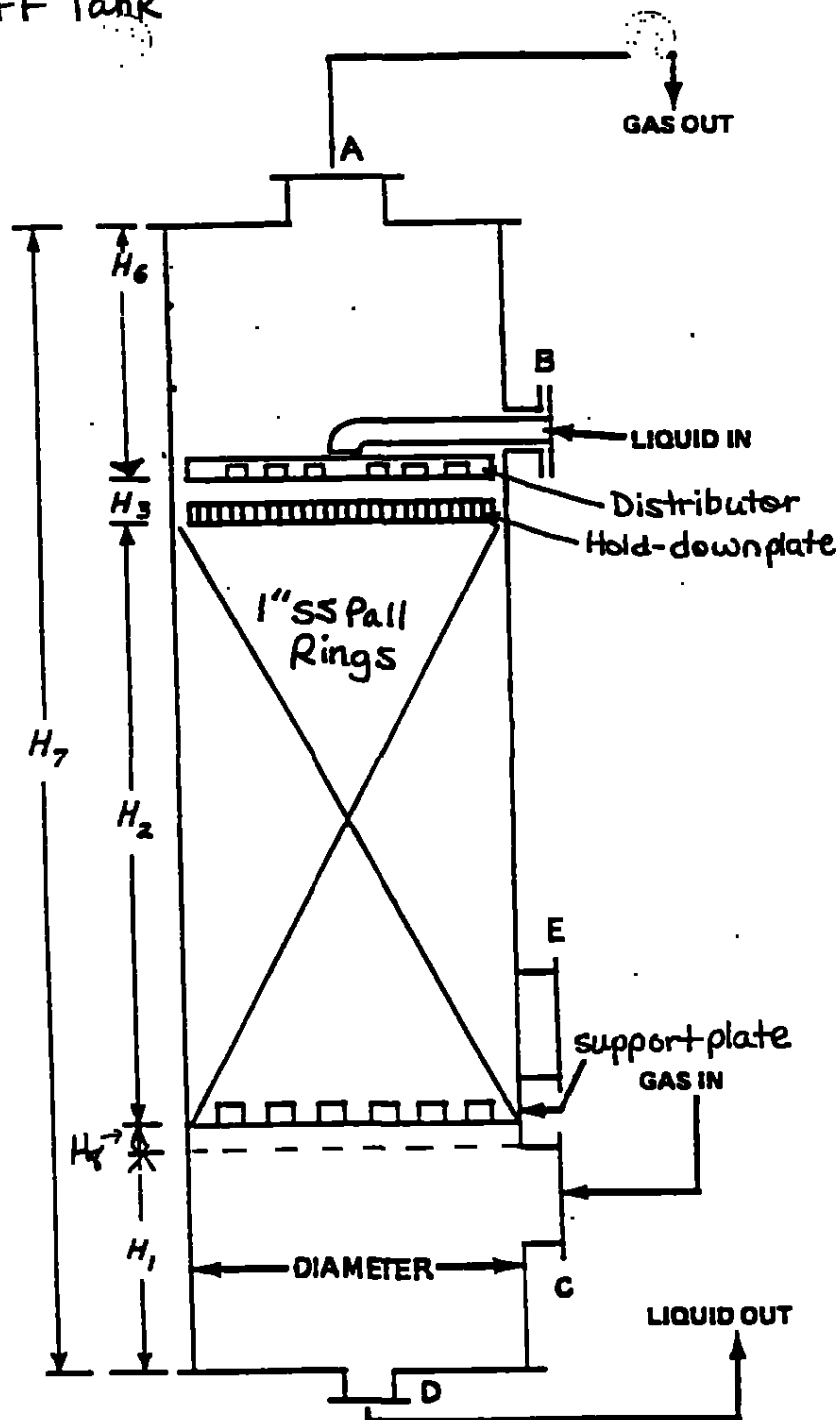
SIZE OF NOZZLES

A	4 in.
B	2 in.
C	4 in.
D	2 in.
E	8"
Etc.	Diameter = 8 in.

HEIGHT

H ₁	18 in.
H ₂	12 ft.
H ₃	10 in.
H ₄	—
H ₅	—
H ₆	2 ft.
H ₇	17 ft.
H ₈	8 in.

WWCB Primary FF Tank



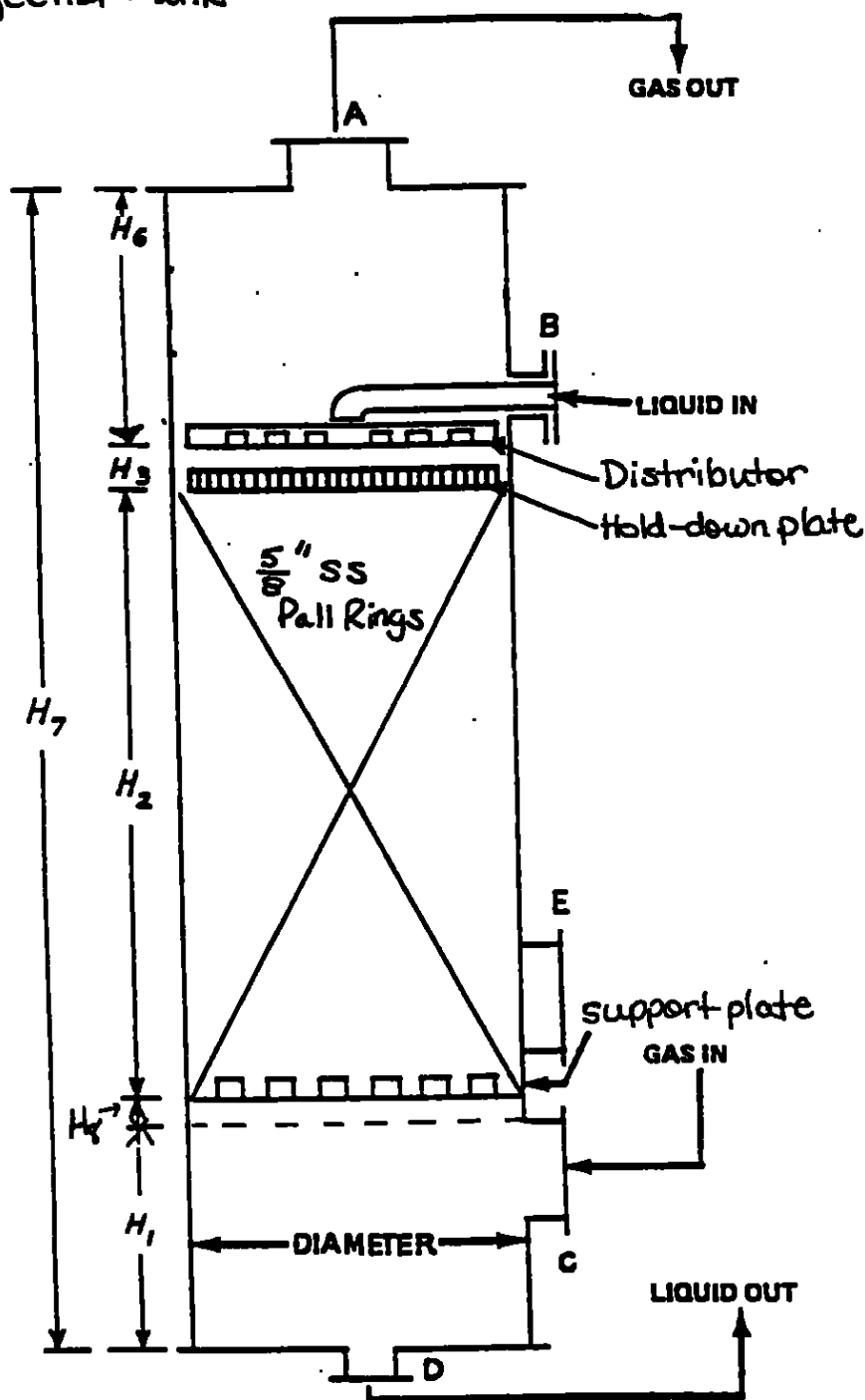
SIZE OF NOZZLES

A	4 in.
B	2 in.
C	4 in.
D	2 in.
E	8"
Etc.	Diameter = 8 in.

HEIGHT

H_1	18 in.
H_2	12 ft.
H_3	10 in.
H_4	—
H_5	—
H_6	2 ft.
H_7	17 ft
H_8	8 in.

WW Well Injection Tank



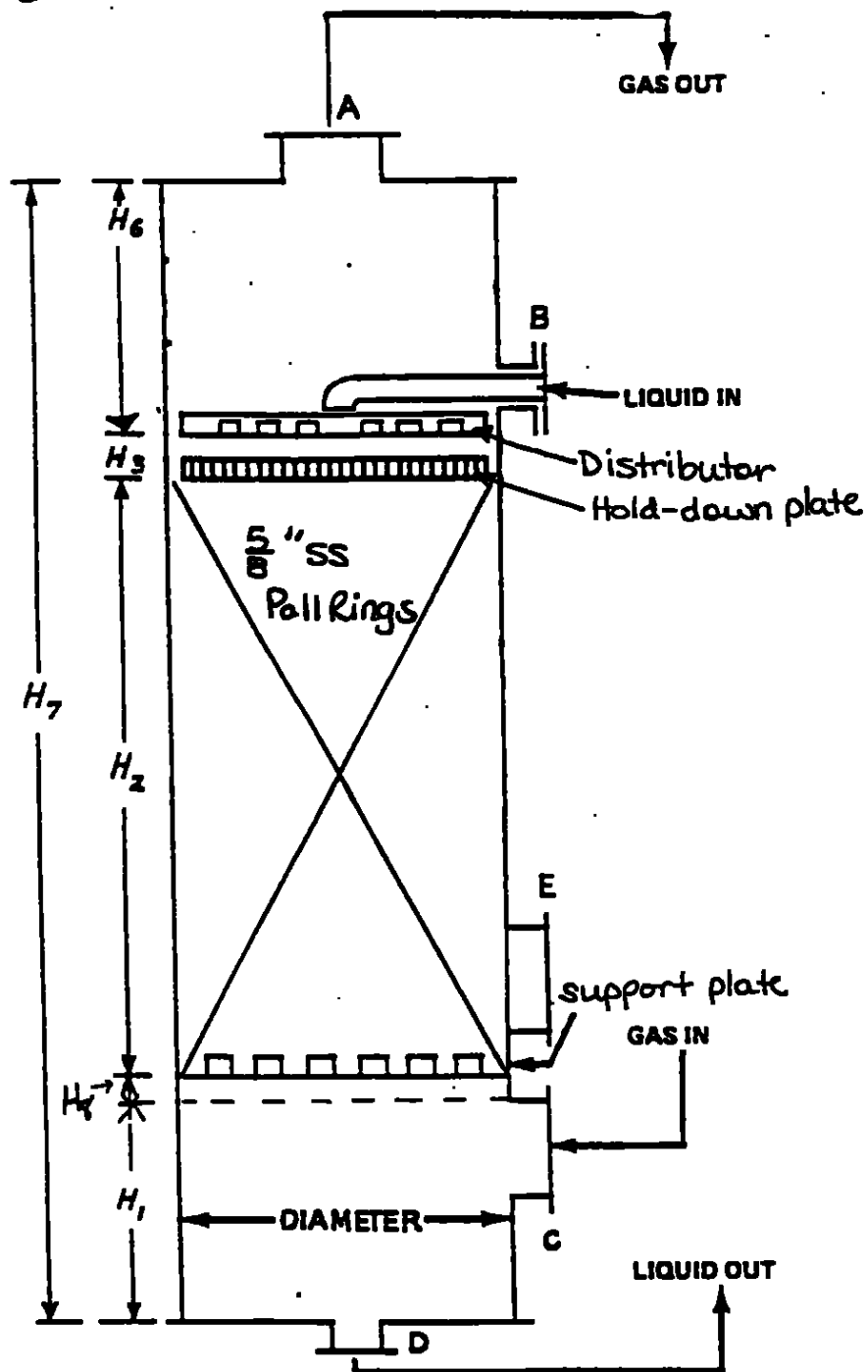
SIZE OF NOZZLES

A	6"
B	3"; 1" pipe
C	6"
D	2"
E	10"
Etc.	Diameter = 10 in.

HEIGHT

H1	18 in.
H2	8 ft.
H3	10 in.
H4	—
H5	—
H6	2 ft.
H7	13 ft.
H8	8 in.

WWCB Secondary FF Tank



SIZE OF NOZZLES

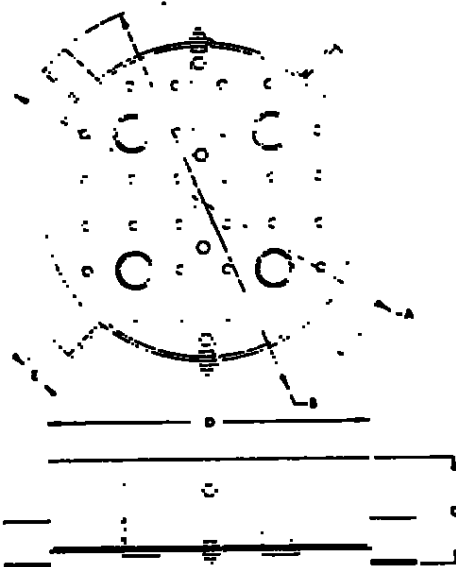
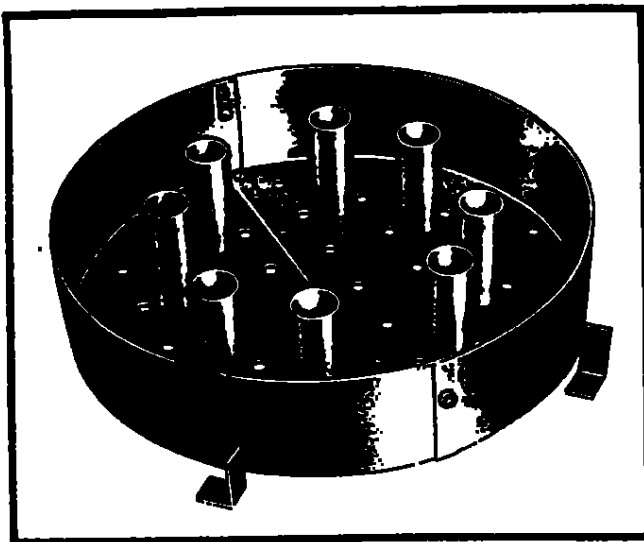
A 6"
 B 3" ; 1" pipe
 C 6"
 D 2"
 E 10"
 Etc. Diameter = 10 in.

HEIGHT

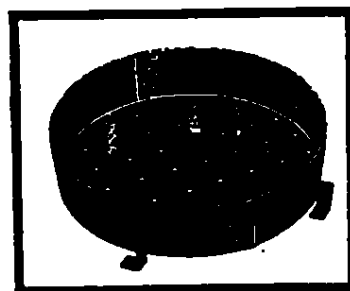
H₁ 18 in.
 H₂ 8 ft.
 H₃ 10 in.
 H₄ —
 H₅ —
 H₆ 2 ft.
 H₇ 13 ft.
 H₈ 8 in.

NORTON

Model 845 Metal Orifice-Type Distributor 6" — 47½"



Model 845 distributors for 6" through 18¼" I.D. towers do not require risers. In these applications, the distributor is furnished as shown in the small photo.



The orifice-type distributor is adaptable to a wide range of flow rates by varying the size and number of the orifices in the pan. The table shows the minimum and maximum flow rates that can be designed into a nominal tower I.D. These figures do not represent the "flow range" of the distributor. The distributor can be designed to provide for any liquid rate range that falls within these minimum and maximum limits, PROVIDING THE TURN-DOWN RATIO IS NO MORE THAN 4:1.

The pan is supported by three equally spaced lugs on one-piece plates; four, on two-piece plates; and six on three-piece plates. The lugs raise the pan above the distributor support ledge to provide an annular space between the distributor and the column wall. Gas rises partially through the annular space and partially through the risers. This distributor is to be center fed, 2" to 8" above the rim of the pan. Maximum feed velocity is 10 ft./sec. The distributor is not available with corrosion allowance.

CONSTRUCTION — Distributors for 6" through 11¾" I.D. towers are available in one-piece construction only. Two-piece construction is standard for 12" through 34" tower I.D. and will be furnished unless one-piece construction is specified. Sizes for 35" through 47½" I.D. towers are available in one or three-piece construction, with 3 piece being the standard.

WHEN ORDERING OR INQUIRING, consult the check list on the inside back cover for design data that must be supplied.

MODEL 845 ORIFICE TYPE METAL DISTRIBUTOR

TOWER I.D.—A		PLATE O.D. B	HEIGHT C	PAN DIA. D	LUG WIDTH E	SUPPORT LEDGE (MIN.)	MIN. DIA. ACCESS	FLOW—GPM		APPROX. WEIGHT (LBS.)*
INCHES	MM							MIN.	MAX.	
6"	152	5¾"	7"	5¼"	¼"	¾"	6"	¼	10	5
8"	203	7¾"	7"	7"	¼"	¾"	8"	½	17	7
10"	254	9¾"	7"	8¾"	¼"	¾"	10"	½	27	9
12"	305	11¾"	7"	10½"	1½"	¾"	9¼"	¾	41	12
13¼"	337	13"	7"	10½"	1½"	¾"	9¼"	¾	41	14
14¼"	362	14"	7"	12¼"	1½"	¾"	9¾"	1	54	14
15¼"	388	15"	7"	12¼"	1½"	¾"	9¾"	1	54	16
17¼"	438	17"	7"	15½"	1½"	¾"	10½"	1½	82	18
19¼"	489	19"	7"	16¾"	1½"	1"	11¼"	1¾	96	27
21¼"	540	21"	7"	18"	1½"	1"	11¼"	2	110	30
23¼"	591	23"	7"	20¾"	1½"	1"	12¼"	1¾	96	32
29¼"	743	28¾"	7"	26½"	1½"	1"	15¼"	2½	137	48
36"	914	35½"	8"	31¾"	1½"	1"	14¼"	3½	195	63
42"	1067	41½"	8"	37"	1½"	1½"	16"	4¼	264	80
47½"	1206	47"	8"	42¾"	1½"	1½"	18¼"	6½	367	100

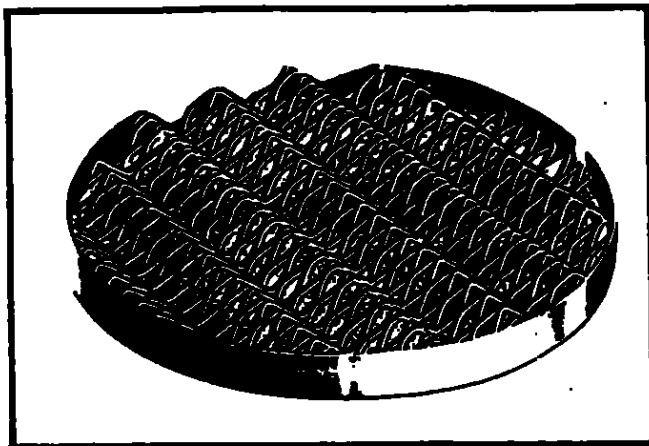
*Weights shown are for standard construction and material thickness.

NOTE: Tower sizes shown above are typical. The Norton Company will manufacture plates to any intermediate size, within the size range shown in the table, without special engineering charges.

Revised December 1976

NORTON

Model 809 Light-Duty Metal Support Plate 4" — 29½"



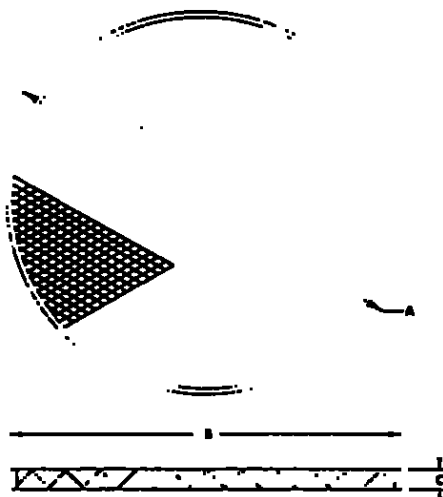
Model 809 is a corrugated type support plate for use for tower I.D.'s ranging from 4" through 29½". This is a pseudo gas-injection plate designed for use with light-weight metal or plastic packing in towers where bed loads are not high and corrosion problems are not severe. For high performance applications, the Model 818 gas-injection plate should be considered for tower I.D.'s 12" thru 47½".

CONSTRUCTION — The Model 809 is furnished in one-piece construction for tower I.D.'s through 7¾" and in 2-piece for I.D.'s 8" through 29½". Corrosion allowance is not available in this plate.

****MINIMUM PACKING SIZE** shown in the table below is for saddles. If rings are used, minimum size is ¼" for towers through 11¾" I.D. and ⅝" for towers 12" I.D. and larger.

MAXIMUM LOADING — 400 lbs./sq. ft.

WHEN ORDERING OR INQUIRING, consult the check list on the inside back cover for design data that must be supplied.

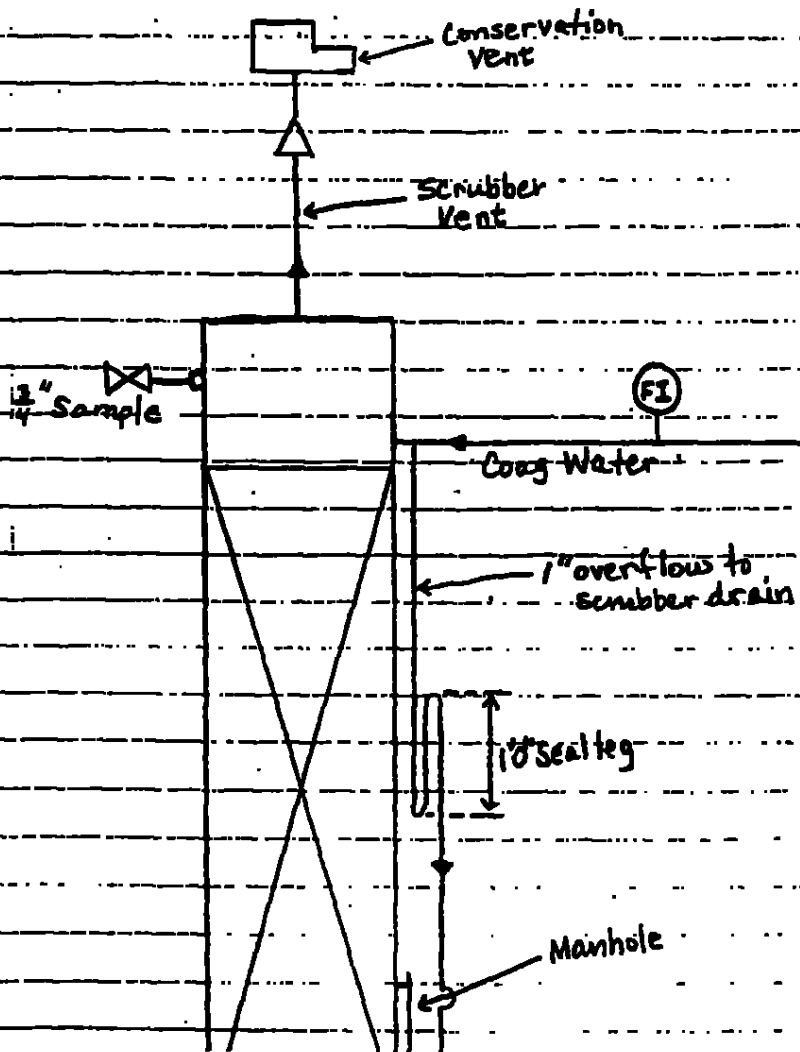


MODEL 809 "GAS INJECTION" METAL SUPPORT PLATE

TOWER I.D. — A		PLATE O.D. B	HEIGHT C	PACKING SIZE ** (MIN.)	SUPPORT LEDGE (MIN.)	MIN. DIA. OF ACCESS (2 PIECE)	APPROX. NET WEIGHT (LBS.)*
INCHES	MM						
4	102	3¾"	1"	¾"	¾"	Not Avail.	2
6	152	5¾"	1"	¾"	¾"	Not Avail.	3
8	203	7¾"	1"	¾"	¾"	6"	4
10	254	9¾"	1"	¾"	¾"	6"	5
12	305	11¾"	1"	1"	¾"	7"	6
13½	337	12¾"	1"	1"	¾"	8"	7
14½	362	14"	1"	1"	¾"	9"	8
15½	388	15"	1"	1"	¾"	9"	9
17½	438	17"	1"	1"	¾"	10"	10
19½	489	19"	1"	1"	1"	11"	11
21½	540	21"	1"	1"	1"	12"	12
23½	591	23"	1½"	1"	1"	12"	15
29½	743	28½"	1½"	1"	1"	15"	20

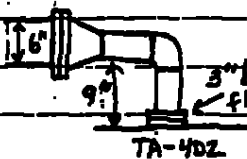
*Weights shown are for standard construction and material thickness.

NOTE: Tower sizes shown above are typical. The Norton Company will manufacture plates to any intermediate size, within the size range shown in the table, without special engineering charges.



Notes:

1. Total of (5) Units Re
 - (2) @ 10' ϕ with 8ft pac
 - (2) @ 8' ϕ with 12ft pac
 - (1) @ 6' ϕ with 8ft pa
2. 3" CS blind flange on



3. All flanges to be C.S. 6/1/92

Victor,

This is my assessment of what I think you wanted. We can discuss it if it does not meet your expectations.

Thanks,

Monica
X6690

AN PLANT:
Waste Treatment-Ta
Scrubbers

Received on 6/1/92

To: Ray Thompson Date: June 29, 1988
Location: Project Engineering Copy to: Paul Savov
From: Sheila Falgoust File: ~~5024-0000~~
1130-005
Location: Process Engineering
Extension: 6542
Subject: Scrubber Design
Reference:

The design for the scrubber which is to replace the WWCB backwash pit at the Acrylonitrile Plant is as follows:

Gas Feed: The scrubber is designed for a peak flow rate of 1407 lb/hr. This is the combined flow of the water and air entering the tank at the rates of 700 gpm and 200 SCFM, respectively.

Bed Height: Six feet of packing is required.

Scrubber Diameter: 15 inch diameter is required.

Scrubbing Liquid: A flow rate of 4 gpm is required.

COLUMN INTERNALS

Packing: One inch stainless steel Pall rings.

Liquid Distributor: Norton model 798, minimum ledge width 3/4 inch.

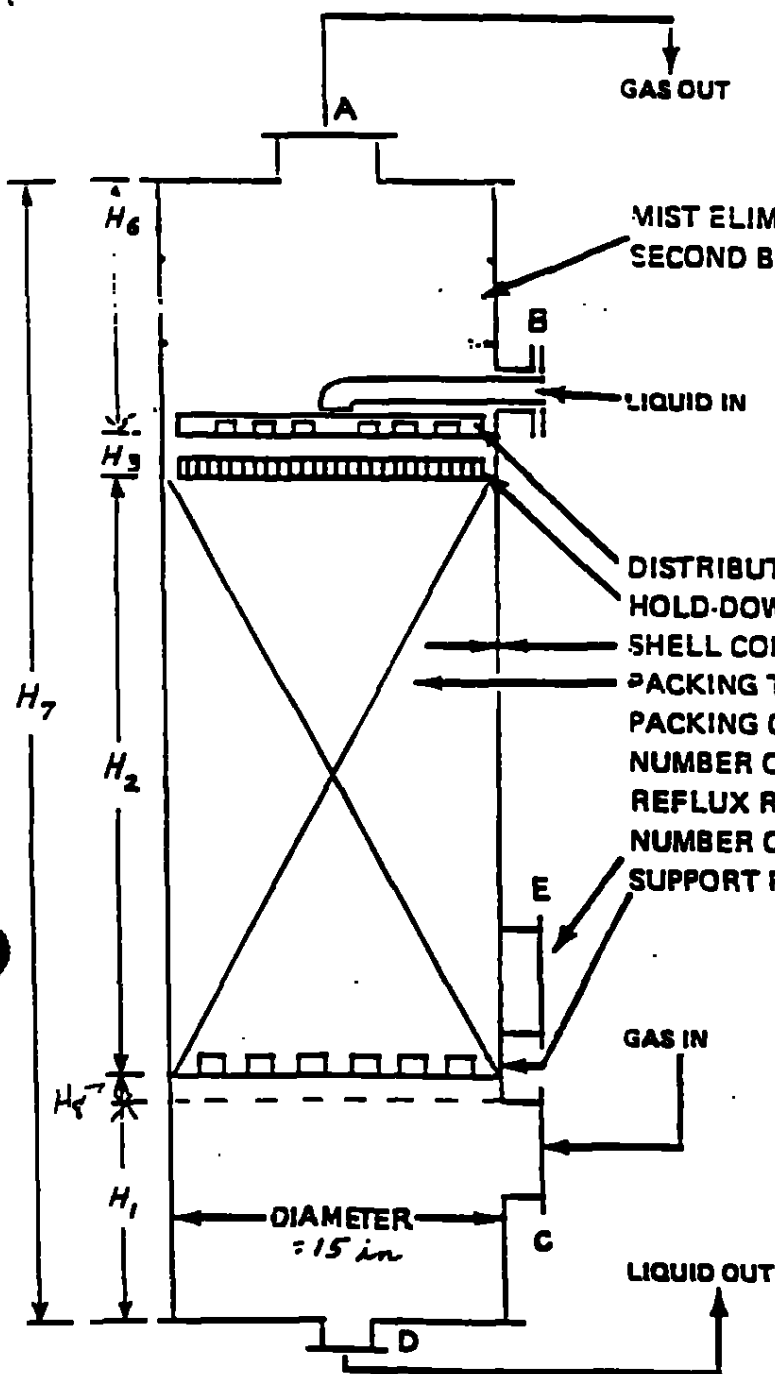
Bed Limiter: Norton model 824, minimum ledge width 1 3/4 inches.

Support Plate: Norton model 818, minimum ledge width 3/4 inch. (Design load is 200 lb/cf.)

Attached is the specification sheet. Please contact me if you have any questions.

Sheila Falgoust
Sheila Falgoust

lpm



Quantity _____ LBS./HR.
 Density _____ LBS./CU.FT.
 Composition _____ VOL. %
 Temperature _____ °F
 Pressure _____ PSIG

MIST ELIMINATOR or
 SECOND BED IN DISTILLATION Yes ☐ No ☒

Quantity 1950 LBS./HR.
 Density 62 LBS./CU.FT.
 Composition WAG ... 72 WT. %
 Temperature 90 °F
 Viscosity 0.75 CENTIPOISE
 Surface Tension _____ DYNES/CM

DISTRIBUTOR NORTON MODEL 798
 HOLD-DOWN PLATE or BED LIMITER NORTON MODEL #2
 SHELL CONSTRUCTION _____
 PACKING TYPE 55 PALL RINGS PACKING SIZE 1"
 PACKING QUANTITY 7.36 ft³ 240 lb
 NUMBER OF PLATES _____
 REFLUX RATIO 0
 NUMBER OF MANHOLES 1 + REMOVABLE TOP
 SUPPORT PLATE NORTON MODEL 818

Quantity 1467 LBS./HR.
 Density 0.0714 LBS./CU.FT.
 Composition _____ VOL. %
 Temperature 100 °F
 Pressure _____ PSIG

Quantity _____ LBS./HR.
 Density _____ LBS./CU.FT.
 Composition _____ WT. %
 Temperature _____ °F

SIZE OF NOZZLES

A 4 in
 B 2 in
 C 4 in
 D 2 in
 E 12 in

Etc. COLUMN DIAMETER
= 15"

HEIGHT

H_1 18 in
 H_2 6 ft
 H_3 10 in
 H_4 _____
 H_5 _____
 H_6 2 ft
 H_7 11 ft
 H_8 8 in

FOR PROMPT SERVICE
 MAIL THIS INQUIRY TO:

Norton Chemical Process Products Div.
 Custom Designed Packed Towers
 P. O. Box 350
 Akron, Ohio 44309



To: P. Knieper

Date: 23 July 1997

Location: Fortier

Copy to: A. Junker
J. Schneller
F.R. Whiteley

From: V. Diaz

Location: Fortier

Extension: 6253

Subject: MET Scrubber Efficiency

Reference: NB1224-8; Quattro Pro file: metgas2.wb2; Word file: metscrub.doc

Contributors: J. Meyer, CJ Wusnack, G. Rich, M. Williams

SAMPLE DESCRIPTION

1. MET Vapor Inlet to Scrubber 6/26/97
2. MET Vapor Exit the Scrubber 6/26/97
3. MET 2 Liquid Sample 6/26/97

PROJECT HISTORY

Samples in and out of the MET scrubber were taken and analyzed for various components to determine scrubber efficiency. A MET liquid sample held at 80°F was air equilibrated in the Lab for comparison purposes.

METHODOLOGY EMPLOYED

Volatile organics by GC-Mass Spectroscopy and GC-FID
Acrylamide and acrylic acid by Liquid Chromatography
Ammonia by Ion Chromatography

3.2 in/hr.

RESULTS

MET 2 Scrubber Samples

Component	MET Vapor Inlet to Scrubber 6/26/97 ppm v/v	MET Vapor Exit the Scrubber 6/26/97 ppm v/v	MET 2 Liquid Sample 6/26/97
Dimethyl Ether	1150	None Detected <0.5	91
Acetone	45	None Detected <0.5	105
Acetonitrile	6	None Detected <0.5	15
Acrylonitrile	35	None Detected <0.5	33
Methacrylonitrile	4	None Detected <0.5	16
Methyl Isopropyl Ketone (MIPK)	31	None Detected <0.5	28
Benzene	Trace ~ 0.4	None Detected <0.5	Trace <5
MMA	None Detected <0.5	None Detected <0.5	None Detected <5
Toluene	121	None Detected <0.5	12
Methanol	25	None Detected <0.5	71
Acrylamide	None Detected <5	None Detected <5	230
Acrylic Acid	None Detected <5	None Detected <5	450
Ammonia	250	60	560

Lab Air Equilibrated MET II Liquid Sample

Experimental Conditions: 226 grams of MET II Liquid (6/26/97) equilibrated in a bag with 226 ml of air at a temperature of 80°F for 30 minutes

Component	MET 2 Liquid Sample 6/26/97 ppm wt/wt	MET 2 Liquid After Air Equilibration ppm wt/wt	Bag Headspace Air After Equilibration ppm v/v
Dimethyl Ether	91	87	1450
Acetone	105	105	55
Acetonitrile	15	15	7
Acrylonitrile	33	24	15
Methacrylonitrile	16	1	3
Methyl Isopropyl Ketone (MIPK)	28	28	37
Benzene	Trace <5	Trace <5	2
MMA	None Detected <5	None Detected <5	None Detected <1
Toluene	12	6	930
Methanol	70	70	None Detected <1
Acrylamide	230	230	---
Acrylic Acid	450	450	---

00145

Air

X

1.110 100

27 22 4 1 3 0 5

CONCLUSION

With the exception of toluene, methanol and to a lesser degree acrylonitrile, the results of the MET Vapor Inlet are quite similar to the bag air equilibration test performed in the lab. However, in the lab air equilibration test, the reduction of acrylonitrile and methacrylonitrile from the MET liquid sample after the air equilibration cannot be accounted by the amount of these components found in the bag's headspace air. The loss of these components may be due to their adsorption by the plastic material of the bag.

A handwritten signature in black ink, appearing to read "V. Diaz", with a stylized, cursive script.

V. Diaz



Clean Air Engineering

500 W Wood St • Palatine IL 60067 • 708-991-3300

Mr. Michael Genius
CYTEC Industries, Inc.
10800 River Road
Westwego, Louisiana 70094

*These are excerpts that are applicable to the
Acrylonitrile (AN) Plant Flare.*

REPORT ON EMISSIONS TESTING

Performed for:
CYTEC INDUSTRIES, INC.
**MMA TANK FARM SCRUBBER, AN PLANT FLARE, AND
FLARE**
AN TANK FARM SCRUBBER FLARE
WESTWEGO, LOUISIANA


Client Reference No: 4A-42501
CAE Project No: 7523-2
Revision 0: February 22, 1996

To the best of our knowledge, the data presented in this report are accurate and complete.

Submitted by,


Kenneth D. Markuson
Project Manager
(708)991-6200 ext. 2041

Reviewed by,


Jack Demkovich
Technical Manager
Central Region Source Testing

PROJECT OVERVIEW

1-1

Cytec Industries, Inc. contracted Clean Air Engineering to perform emissions testing at several processes at their Fortier plant located in Westwego, Louisiana.

Point Source	Tested to Determine Compliance with
MMA Tank Farm Scrubber	NSPS Subpart RRR and NNN
AN Tank Farm Flare	NSPS Subpart Kb
AN Tank Farm Scrubber	Permit # 2195
AMD Flare	Permit # 2107
AN Plant Flare	Permit # 2195

The test parameters included the following pollutants:

- Flare Tip Velocity;
- Total Heating Value;
- Opacity;
- Total Hydrocarbons.

The testing took place at the MMA Tank Farm Scrubber Inlet and Outlet, the AN Tank Farm Scrubber Inlet and Outlet, the AN Plant Flare and the AMD Flare on June 19, 20, 29 and 30, 1995. Coordinating the field testing were:

Orey Tanner - Cytec Industries, Inc.
Joy Usener - Cytec Industries, Inc.
Brenton Berridge - Clean Air Engineering



PROJECT OVERVIEW

1-2

**Table 1-1:
Summary of Test Results**

<u>AN Tank Farm Control System Inlet</u>		
Total Hydrocarbons (ppmdv)	EPA Method 25A	19,770
Total Hydrocarbons (lb/hr) ¹	EPA Method 25A	48.8
<u>Flare Only</u>		
<u>AN Tank Farm Flare Outlet</u>		
Exit Velocity (ft/s)	EPA Method 2	14.96
Net Heating Value (MJ/scm)	EPA Method 18	6.60
Required Heating Value (MJ/Scm)	EPA Method 18	7.45
<u>Scrubber And Flare</u>		
<u>AN Tank Farm Scrubber Outlet</u>		
Total Hydrocarbons (ppmdv)	EPA Method 25A	8,888
Total Hydrocarbons (lb/hr) ¹	EPA Method 25A	18.1
THC Removal Efficiency (%)		62.9
Required Efficiency (%)		98.0
<u>AN Tank Farm Flare Outlet</u>		
Opacity (%)	EPA Method 9	0
Exit Velocity (ft/s)	EPA Method 2	12.2
Net Heating Value (MJ/scm)	EPA Method 18	7.35
Required Heating Value (MJ/Scm)	EPA Method 18	7.45
<u>AMD Flare</u>		
Opacity (%)	EPA Method 9	0
Exit Velocity (ft/s)	EPA Method 2	66.10
Net Heating Value (MJ/scm)	EPA Method 18	5.082
Required Heating Value (MJ/Scm)	EPA Method 18	7.45
<u>AN Plant Flare</u>		
Opacity (%)	EPA Method 9	0
Exit Velocity (ft/s)	EPA Method 2	1.07
Net Heating Value (MJ/scm)	EPA Method 18	1.94
Required Heating Value (MJ/Scm)	EPA Method 18	7.45
<u>MMA Tank Farm Scrubber Inlet</u>		
Total Hydrocarbons (ppmwv)	EPA Method 25A	10,015
Total Hydrocarbons (lb/hr) ¹	EPA Method 25A	6.4
<u>MMA Tank Farm Scrubber Outlet</u>		
Total Hydrocarbons (ppmwv)	EPA Method 25A	352.4
Total Hydrocarbons (lb/hr) ¹	EPA Method 25A	0.19
THC Removal Efficiency (%)		97.0
Required Efficiency (%)		98.0

¹ On an "as propane" basis.

The test conditions and results of analysis are presented in Tables 2-1 through 2-5 on pages 2-1 through 2-5.



RESULTS

2-1

Table 2-1:

Tank Farm AN Scrubber, AMD and AN Plant Flares - Visual Opacity					
<u>Source</u>	<u>Date</u>	<u>Start Time</u>	<u>Stop Time</u>	<u>Average</u>	<u>Maximum</u>
Constituent	(1995)	(approx.)	(approx.)	Reading	Reading
<u>AN Tank Farm Scrubber Flare</u>					
Visual Opacity (%)	June 19	13:54	18:23	0	0
<u>AMD Flare</u>					
Visual Opacity (%)	June 20	8:55	12:35	0	0
<u>AN Plant Flare</u>					
Visual Opacity (%)	June 29	9:25	13:05	0	0



RESULTS

2-4

Table 2-4:
AN Plant Flare - Exit Velocity and Heating Value

Run No.	1	2	3	Average
Date (1995)	June 29	June 29	June 29	
Start Time (approx.)	09:35	10:35	11:35	
Stop Time (approx.)	10:05	11:05	12:05	
Gas Conditions				
T _s Temperature (°F)	90	90	89	90
B _{ws} Moisture (volume %) ¹	4.67	4.73	4.61	4.67
O ₂ Oxygen (dry volume %)	1.4	1.7	1.3	1.5
CO ₂ Carbon dioxide (dry volume %)	5.3	5.4	5.8	5.5
Volumetric Flow Rate				
Q _a Actual conditions (acfm)	191	206	210	202
Q _{std} Standard conditions (dscfm)	175	189	193	186
AN Plant Flare				
NHV Net Heating Value (Btu/ft ³)	49.2	61.0	46.3	52.2
NHV Net Heating Value (MJ/scm)	1.83	2.27	1.72	1.94
V _{max} Maximum Velocity (ft/s)	30.4	31.3	30.1	30.6
V Exit Velocity (ft/s)	1.01	1.09	1.11	1.07

¹ Runs 1, 2 and 3 were saturated. Saturated moisture values were used in all calculations.



DESCRIPTION OF INSTALLATION

3-3

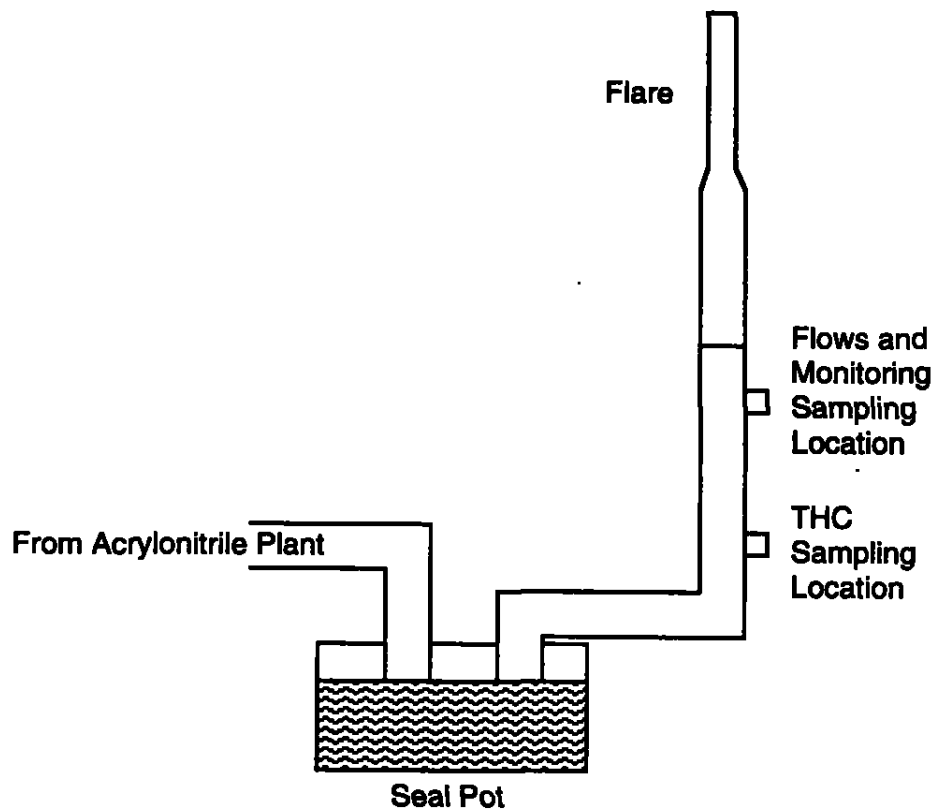


Figure 3-3: AN Plant Flare



METHODOLOGY

4-1

The sampling followed procedures as detailed in U.S. Environmental Protection Agency (EPA) Methods 1, 2, 3, 4, 18, 22 and 25A. The following table summarizes the methods and their respective sources.

**Table 4-1:
Summary of Sampling Procedures**

Title 40 CFR Part 60 Appendix A

Method 1	"Sample and Velocity Traverses for Stationary Sources"
Method 2	"Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)"
Method 3	"Gas Analysis for the Determination of Dry Molecular Weight"
Method 4	"Determination of Moisture Content in Stack Gases"
Method 18	"Measurement of Gaseous Organic Compound Emissions by Gas Chromatography"
Method 22	"Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares"
Method 25A	"Determination of Total Gaseous Organic Concentrations using a Flame Ionization Analyzer (FIA)"

These methods appear in detail in Title 40 of the Code of Federal Regulations (CFR).

These sampling, recovery and analytical procedures are summarized on pages 4-2 through 4-12.



METHODOLOGY

4-2

SAMPLING POINT DETERMINATION

Sampling point locations were determined according to EPA Method 1 and 1A.

Table 4-2 outlines the sampling point configurations. Figure 4-1 through 4-3 illustrate the sampling points and orientation of sampling ports for each of the sources tested in the program.

**Table 4-2:
Sampling Points**

Location	Constituent	Method	Run No.	Ports	Points per Port	Minutes per Point	Total Minutes	Figure
AN Tank Farm	Velocity	2	1-3	1	8	Varied	Varied	4-1
AN Tank Farm	Moisture	4	1-3	1	1	30	30	4-1
AN Tank Farm	THC	25A	1-3	1	1 ¹	Varied	Varied	4-1
MMA Scrubber	Velocity	2	1-3	2	6	Varied	Varied	4-2
MMA Scrubber	THC	25A	1-3	1	1 ¹	Varied	Varied	4-2
AN Plant Flare	Velocity	2	1-3	1	3	Varied	Varied	4-3
AN Plant Flare	Moisture	4	1-3	1	1	30	30	4-3
AMD Flare Inlet	Velocity	2	1-3	1	4	Varied	Varied	4-4
AMD Flare Inlet	Moisture	4	1-3	1	1	30	30	4-4

¹ Total Hydrocarbons were sampled from the approximate center of the duct.



METHODOLOGY

4-5

SAMPLING POINT DETERMINATION (CONTINUED)

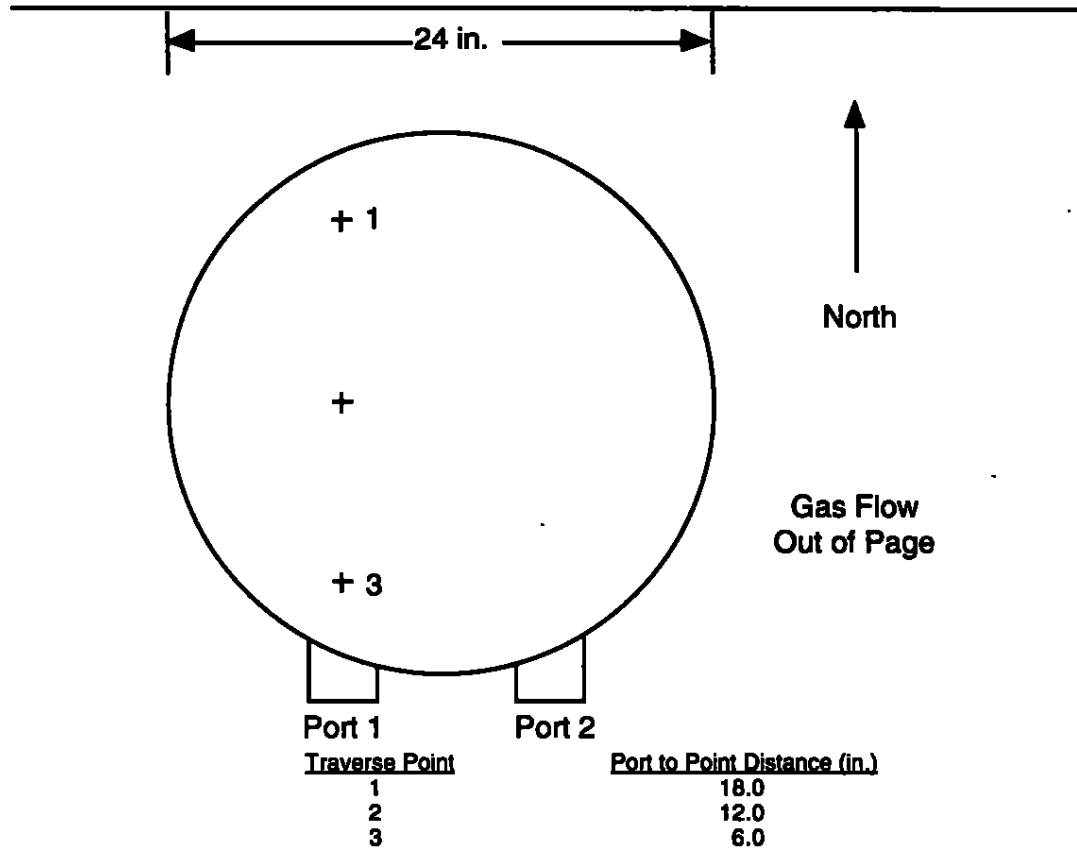


Figure 4-3: AN Plant Flare Inlet Sampling Point Determination (EPA Method 1)



METHODOLOGY

4-7

VELOCITY AND VOLUMETRIC FLOW RATE - EPA METHOD 2

EPA Method 2 was used to determine the gas velocity and flow rate at the AN Tank Farm Scrubber Inlet and Outlet.

Figure 4-5 shows the major components of the Method 2 sampling apparatus.

Each set of velocity determinations included the measurement of gas velocity pressure and gas temperature at each of the EPA Method 1 traverse points. The velocity pressures were measured with a Type S pitot tube. Gas temperature measurements were made using a Type K thermocouple and digital pyrometer.

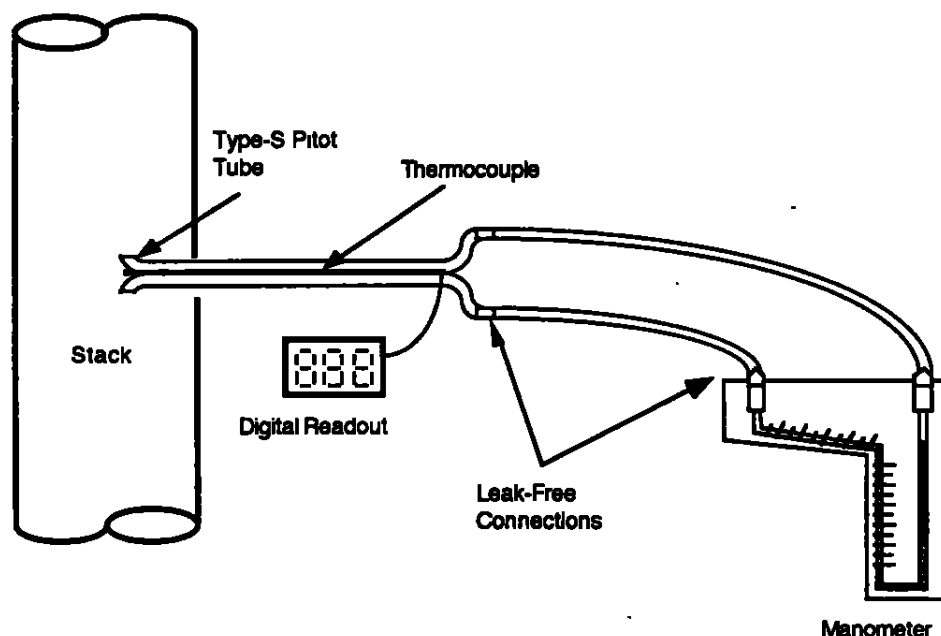


Figure 4-5: Velocity Sampling Apparatus (EPA Method 2)

The flows at the MMA Tank Farm Scrubber Inlet and Outlet, the AN Plant Flare and the AMD Flare were determined using a vane anemometer. The flows at these locations were too low to measure using a pitot tube. The vane anemometer gave results in actual feet per minute.

GAS COMPOSITION AND MOLECULAR WEIGHT - EPA METHOD 3

In order to determine the oxygen (O_2) concentration, carbon dioxide (CO_2) concentration and gas molecular weight, a time-integrated sample of the gas was obtained and analyzed in accordance with EPA Method 3. The gas sample was collected into a vinyl sample bag and analyzed for O_2 and CO_2 concentrations using an Orsat gas analyzer.



METHODOLOGY

4-8

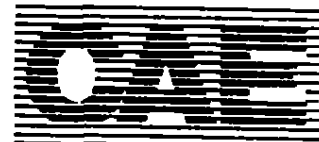
MOISTURE CONTENT - EPA METHOD 4

The flue gas moisture content at the AN Tank Farm Scrubber Inlet and Outlet, the AN Plant Flare and the AMD Flare was determined in accordance with EPA Method 4. Figure 4-6 shows the major components of the EPA Method 4 sampling apparatus. The gas moisture was determined by quantitatively condensing the water in a chilled impinger train. The amount of moisture condensed was determined volumetrically. A dry gas meter was used to measure the volume of gas sampled. The amount of water condensed and the volume of gas sampled were used to calculate the gas moisture content in accordance with EPA Method 4 calculations.

The sample gas entered an impinger condenser system for drying of the gas. The condenser system consisted of four leak-free glass impingers and rubber leak-free connectors. The first two impingers each contained 100 milliliters of distilled water. The third impinger was empty, and the fourth contained 300 grams of silica gel. All four of the impingers were placed in an ice bath for the duration of the test.

The metering system included a vacuum gauge, a leak-free pump, thermometers accurate to within $\pm 5.0^{\circ}\text{F}$ and a dry gas meter accurate to within 2%.

Before and after each test, the sample apparatus was leak checked. A leakage rate of less than the 0.02 cfm was considered acceptable.



METHODOLOGY

4-9

MOISTURE CONTENT (CONTINUED)

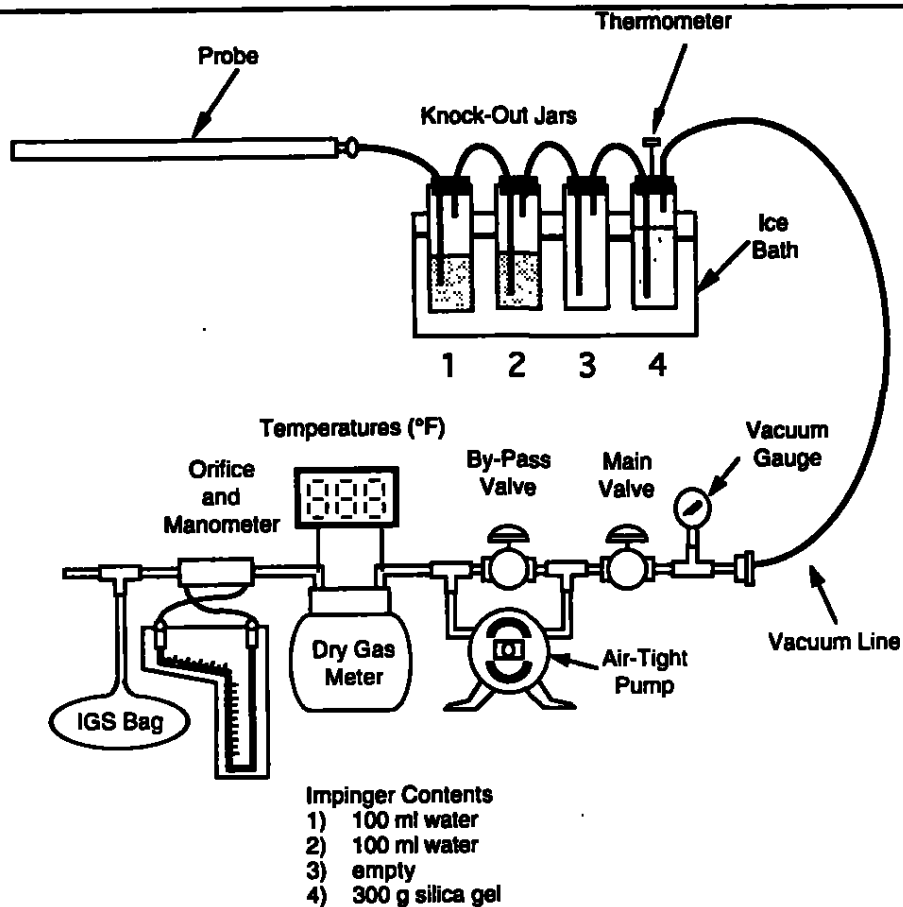


Figure 4-6: Moisture Sampling Apparatus (EPA Method 4)

METHODOLOGY

4-10

VOLATILE EMISSIONS TESTING - EPA METHOD 18

EPA Method 18 was used to measure the net heating value. This method specifies the use of a variety of sampling techniques coupled with analysis by Gas Chromatography (GC).

At the test location a sample of the gas stream was extracted from the source through a stainless steel probe and Teflon sample line and drawn into tedlar collection bags. Figure 4-7 illustrates the sampling train which was used. The sample train was leak checked before and after each test run. Sample gas was collected at a rate of one liter per minute. The sample gas flow rate was measured using a glass flow meter. Once sampling was completed, the Tedlar bags were sealed and transferred to the laboratory for analysis.

An HP 5890II Gas Chromatograph coupled with a thermal conductivity detector was used for sample analysis. Tedlar bag samples were analyzed after completion of the test run. An initial calibration consisting of five different concentration levels was performed prior to sample analysis. Standard concentrations were prepared in air and bracketed the sample concentrations.

Data from the chromatograms were reduced by identifying peaks and matching their retention times with those of the known standards. Peak areas were calculated using computer integration. Results were calculated by mathematically comparing the area of the sample to the area of the standards using an average response factor. Results were calculated in BTU/ft³.

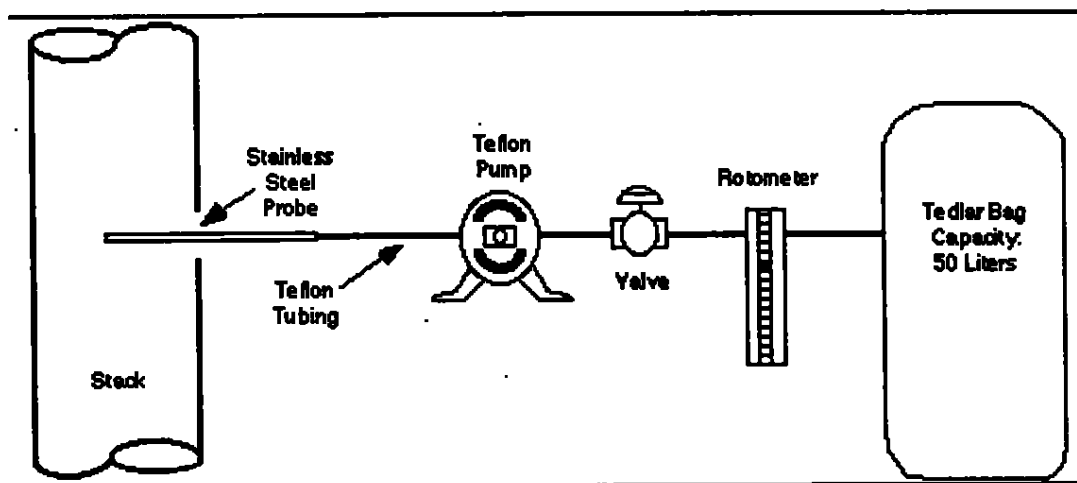


Figure 4-7: Sampling Apparatus (EPA Method 18)

METHODOLOGY

4-11

OPACITY - EPA METHOD 22

Stack opacity readings were taken for twenty minute periods by a certified visible emissions reader. The results are reported as a maximum opacity reading for the twenty minute period as well as the average opacity of all runs. A copy of the visible emissions reader's current certification is included in the Appendix.

TOTAL HYDROCARBONS - EPA METHOD 25A

Gaseous monitoring of total hydrocarbon (THC) emissions from the MMA Tank Farm Scrubber Inlet and Outlet, the AN Tank Farm Scrubber Inlet and Outlet was performed using EPA Method 25A. A gas sample was continuously extracted from the stack and delivered to a Flame Ionization Analyzer (FIA) which measured the THC concentration in the gas on a wet volumetric basis. The analyzer was calibrated on-site using certified mixtures of calibration gases.

Figure 4-8 contains a general schematic of the THC monitoring system. The system utilized a heated stainless steel probe for gas withdrawal. The end of the probe was equipped with a sintered stainless steel filter for particulate removal. The exit of the probe was connected to a heated three-way stainless steel valve which facilitated system calibrations. A heated Teflon sample line delivered the sample gases from the stack to the instrumental system, which was located at ground level. The heated sample line was designed to maintain the gas temperature above 250°F in order to prevent condensation of stack gas moisture within the line.

The gas stream remained heated and was transported directly into a J.U.M. Engineering Model VE-7 Flame Ionization Analyzer. The THC analyzer contained a heated pump for gas delivery.

The analyzer was calibrated according to the reference method procedures using EPA Protocol No. 1 certified gas mixtures of propane in nitrogen. Before testing, the analyzer was calibrated by introducing zero and high-level (80-90% of span) gases into the sampling line at the exit of the heated probe and making any appropriate analyzer adjustments based on the analyzer response. Then, the calibration error of the system was determined by introducing low-level (25-35% of span) and mid-level (45-55% of span) gases into the analyzer system and recording the response without any adjustments made to the analyzer. The calibration errors for the low-level and mid-level gases were demonstrated to be less than 5% of the respective gas cylinder values.

Immediately following each of the three test runs, the zero gas and one up-scale gas were introduced into the sampling system to check for calibration drift. In order for a test run to be considered valid, the calibration drift between the pre-test and post-test calibrations was required to be demonstrated to be less than 3% of the analyzer span. The results of the pre-test and post-test drift checks were used to correct the average flue gas concentration measured during each test run for analyzer drift during that period.



METHODOLOGY

4-12

TOTAL HYDROCARBONS (CONTINUED)

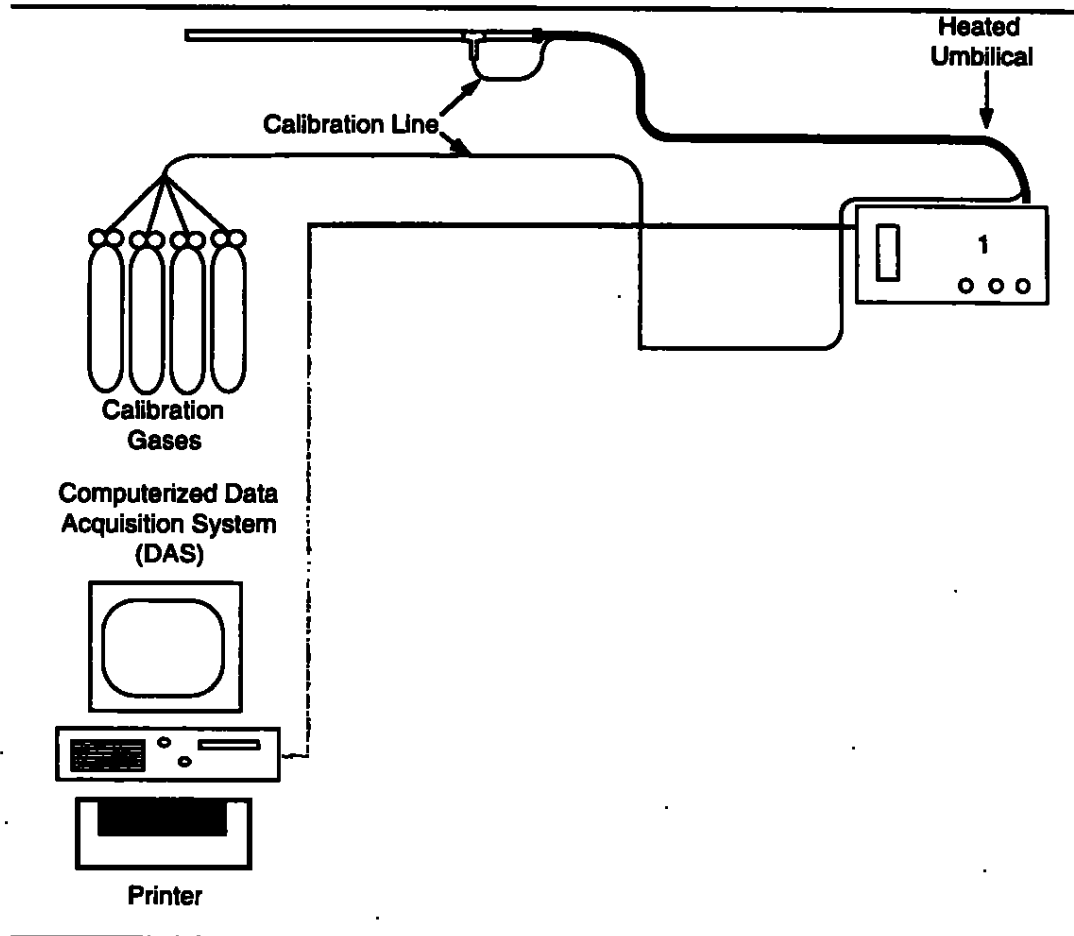


Figure 4-8: THC Monitoring System Schematic



CYTEC INDUSTRIES, INC.

CAE Project No: 7523

Location: AN Plant Flare

Date (1995) June 29

Start Time 9:25

End Time 13:05

METHOD 22 PARAMETERS

Run	Clock Time (start)	Observation Period (minutes)	Opacity (%)
1	9:25	20	0
	9:50	20	0
	10:15	20	0
2	10:40	20	0
	11:05	20	0
	11:30	20	0
3	11:55	20	0
	12:20	20	0
	12:45	20	0
Minimum			0
Average			0
Maximum			0

VELOCITY AND MOISTURE PARAMETERS

Run No.	1	2	3
Date (1995)	June 29	June 29	June 29
Start Time (approx.)	09:35	10:35	11:35
Stop Time (approx.)	10:05	11:05	12:05
Sampling Conditions			
Y_d Dry gas meter correction factor	0.9834	0.9834	0.9834
P_g Static pressure (in. H_2O)	0.0	0.0	0.0
A_s Sample location area (ft ²)	3.14	3.14	3.14
P_{bar} Barometric pressure (in. Hg)	30.00	30.00	30.00
O_2 Oxygen (dry volume %)	1.4	1.7	1.3
CO_2 Carbon dioxide (dry volume %)	5.3	5.4	5.8
V_{lc} Liquid collected (ml)	65.3	72.0	67.5
V_m Volume metered, meter conditions (ft ³)	23.85	23.04	23.22
T_m Dry gas meter temperature (°F)	86	92	95
T_s Sample temperature (°F)	90	90	89
ΔH Meter box orifice pressure drop (in. H_2O)	1.80	1.80	1.80
Flow Results			
V_{wstd} Volume of water collected (ft ³)	3.07	3.39	3.18
V_{mstd} Volume metered, standard (ft ³)	22.85	21.82	21.87
P_s Sample gas pressure, absolute (in. Hg)	30.00	30.00	30.00
P_v Vapor pressure, actual (in. Hg)	1.40	1.42	1.38
B_{wo} Moisture in sample (% by volume)	11.86	13.45	12.68
B_{ws} Saturated moisture (% by volume)	4.67	4.73	4.61
M_d MW of sample gas, dry (lb/lb-mole)	28.90	28.93	28.98
M_s MW of sample gas, wet (lb/lb-mole)	28.39	28.41	28.47
V_s Velocity of sample (ft/sec)	1.0	1.1	1.1
Q_s Volumetric flow rate, actual (acfm)	191	206	210
Q_{std} Volumetric flow rate, standard (dscfm)	175	189	193

¹ Runs 1, 2 and 3 were saturated. Saturated moisture values were used in all calculations.

Orsat Readings

Page 1 of 1

Client <u>CYTEC</u>	Project Number <u>7523</u>
Plant <u>FORTIER</u>	Unit <u>ACRYLONITRILE</u>
Date <u>6/29/95</u>	Fuel Type <u>NA</u>
Orsat ID <u>84GA1</u>	Leak Check? <u>OK</u>

$F_o = \frac{20.9 - \%O_2}{\%CO_2}$
 $F_o = 1.083 \text{ to } 1.230$
 (for bituminous coal)

Run Number	Location	Bag ID	Trial	Percent CO ₂	Percent CO ₂ - O ₂	Percent O ₂	F _o	Sample Time	Analysis Time	Analyst
1	AN FLARE INLET		1	5.4	6.8	1.4		9:35	13:15	BB
			2	5.2	6.6	1.4				
			3	5.2	6.6	1.4				
			Avg.	5.3		1.4				
2	AN FLARE INLET		1	5.4	7.2	1.8		10:35	13:26	BB
			2	5.4	7.0	1.6				
			3	5.4	7.0	1.6				
			Avg.	5.4		1.7				
3	AN FLARE INLET		1	5.8	7.2	1.4		11:35	13:41	BB
			2	5.8	7.2	1.4				
			3	5.8	7.0	1.2				
			Avg.	5.8		1.3				
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							



Page 1 of 1

Location: An Place Run: /

Client	CYTEC	Project Number	7523
Plant	FORTIER	Unit	REGULATORY
Date	6-29-95	W/O/Outlet/Stack	
Meter Operator	T. GREEN		
Meter Box Number	84-M2		
Meter ΔH	1.7336	Yd	0.9834

Leak Rate Before	400	cf/m @	15	"Hg
Leak Rate After	400	cf/m @	10	"Hg

Cross-Section of Test Location		Gas Flow
Area (ft ³)	Port Len (in.)	IN OUT
	8"	IN OUT
3.142		

Ambient Temp. (°F)	80
Bar. Press.	30.00
Probe Length	NA
Probe Material	NA
IGS Bag ID No.	NA
H ₂ O (ml)	2.3
Silica Gel (gm)	42.3
Total Vc	65.3
Start Time:	0935
Stop Time:	1005

Min./pt.	Pump Vacuum (in. Hg)	Bath Temp. (°F)	Orifice Setting (in. H ₂ O)	Initial Volume 862.876	Gas Sample Temperature at Dry Gas Meter		Notes
					Inlet T _m in. (°F)	Outlet T _m out (°F)	
5	4	40	1.8	866.86	81	80	FLOW 1. 61 FT/min. 2. 57 FT/min. 3. 64 FT/min. TEMP. 89.7 STANC = 0.0 Bug = 0.046 BKG SAMPLE 0935 / 1055
10	4	↓	1.8	870.92	86	81	
15	4		1.8	874.76	87	81	
20	4		1.8	878.57	92	83	
25	4		1.8	882.36	93	83	
30	4		1.8	886.729	94	84	
Total							
Average							

Page 1 of 1

Location: AN FLARE Run: 3

Client	CYTEC	Project Number	7523
Plant	FORTIER	Unit	REGULATIONS
Date	6-29-95	Inlet/Outlet/Stack	
Meter Operator	T. GREEN		
Meter Box Number	84 - M2		
Meter ΔH@	1.733L	Yd	0.9834

Leak Rate Before	Leak Rate After	"Hg
0.001 cf/m @	0.004 cf/m @	15
		10


Cross-Section of Test Location	Area (ft ³)	Part Len (In.)	Gas Flow IN OUT
	3.142	8	


Ambient Temp. (°F)	88
Bar. Press.	30.00
Probe Length	—
Probe Material	PF3
IGS Bag ID No.	—
H ₂ O (ml)	2.5
Total Vic	62.5
Start Time:	1/35
Stop Time:	2:05

Mln/pt	Pump Vacuum (In. Hg)	Bath Temp. (°F)	Orifice Setting (in. H ₂ O)	Initial Volume V _m (ft ³)	Gas Sample Temperature at Dry Gas Meter		Notes
Clock Time					Inlet T _{m in.} (°F)	Outlet T _{m out.} (°F)	
5	6	40°	1.8	914.09	93	90	Flow 1.69 FT/min. AVE 66.67
10	6		1.8	917.82	95	90	2.64 FT/min.
15	6		1.8	921.02	97	91	3.67 FT/min.
20	6		1.8	924.87	99	92	
25	6		1.8	929.43	102	93	
30	6	✓	1.8	933.27	103	93	TEMP. 89.3
							Rws = 0.246
							STATIC 0.0
							BAG SAMPLE
Total							1135 / 1235
Average				23.216	94.83		

DS 004 Moisture
CNVS/TRG.R0-10/2/93

Page 1 of 1Page 1 of 1

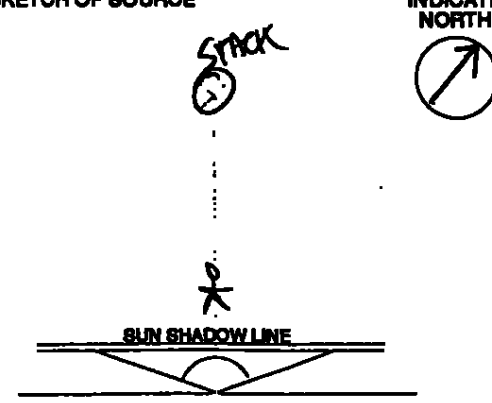


<p>↑ N</p> <p>0.18-24"</p> 	<p>Area (ft³)</p> <p>3.142</p>	<p>Port Len (in.)</p> <p>8"</p>	<p>Gas Flow</p> <p>IN OUT</p>
---	---	---------------------------------	-------------------------------

<p>↑ N</p> <p>0.18-24"</p> 	<p>Area (ft³)</p> <p>3.142</p>	<p>Port Len (in.)</p> <p>8"</p>	<p>Gas Flow</p> <p>IN OUT</p>
---	---	---------------------------------	-------------------------------

Area (ft ³)	3.142
Port Len (in.)	8"
Gas Flow	IN OUT

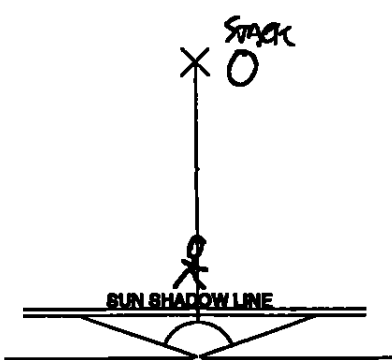


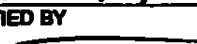

Min./pt	Clock Time	Pump Vacuum (in. Hg)	Bath Temp. ("F.)	Orifice Setting (in. H ₂ O)	Initial Volume <i>896.707</i>	Gas Sample Temperature at Dry Gas Meter		Notes
						Inlet T _m In. ("F)	Outlet T _m Out. ("F)	
5		5	440	1.8	890.71	92	86	Flow 1. 73 ft/min.
10		5		1.8	894.42	96	87	2. 66 ft/min.
15		5		1.8	898.27	97	87	3. 50 ft/min.
20		5		1.8	902.54	98	88	
25		5	V	1.8	906.21	98	88	
30		5		1.8	909.951	99	87	
								Temp. 90.1
Total								Static 0.0 Loss = 0.048 Bag sample
Average					23.042	92.08		1035 / 1135

Visible Emissions Observation Form - Method 22

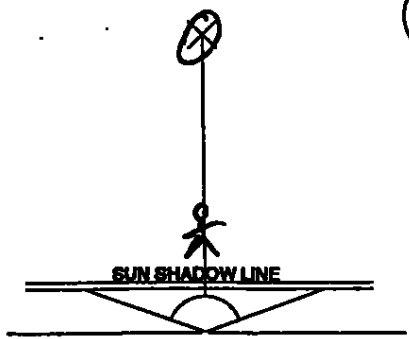


CLIENT/OWNER LYTEC		PROJECT NUMBER 7523		OBSERVATION DATE 6/29/95		START TIME 9:25		END TIME 10:35	
PLANT FOOTIER		UNIT AN FLARE		Clock Time	OBSERVATION PERIOD DURATION (MIN/S)	ACCUMULATED EMISSION TIME (MIN/S)			
PROCESS EQUIPMENT VARIOUS		OPERATING MODE NORMAL							
CONTROL EQUIPMENT FLARE		OPERATING MODE NORMAL							
DESCRIBE EMISSION POINT JUST ABOVE FLARE									
HEIGHT ABOVE GROUND LEVEL 200'		DISTANCE FROM OBSERVER 200'		9:25	20	0			
HEIGHT RELATIVE TO OBSERVER 200'		DIRECTION FROM OBSERVER N-NW		9:50	20	0			
DESCRIBE EMISSIONS NONE				10:15	20	0			
EMISSION COLOR NONE		PLUME TYPE: CONTINUOUS <input type="checkbox"/>							
		FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>							
WATER DROPLET'S PRESENT YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		IF WATER DROPLET PLUME ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>							
POINT IN PLUME AT WHICH EMISSION WERE DETERMINED NA									
DESCRIBE BACKGROUND WHITE CLOUDS									
WIND SPEED 5-10		WIND DIRECTION W							
AMBIENT TEMPERATURE 95		RELATIVE HUMIDITY NA							
LAYOUT SKETCH OF SOURCE 				RANGE OF OPACITY READINGS MINIMUM 0 MAXIMUM 0					
				OBSERVER'S NAME (PRINT) TOON M. GREEN					
				OBSERVER'S SIGNATURE 				DATE 6-29-95	
				CERTIFIED BY 				DATE	
COMMENTS									

CAE

Visible Emissions Observation Form - Method 22

CLIENT/OWNER CYTEC		PROJECT NUMBER 7523		OBSERVATION DATE 6/29/95	START TIME 10:40	END TIME 11:50
PLANT PORTIER		UNIT ACRYLONITRILE		Clock Time	OBSERVATION PERIOD DURATION (MIN/S) 20	ACCUMULATED EMISSION TIME (MIN/S) 0
PROCESS EQUIPMENT VARIOUS		OPERATING MODE NORMAL				
CONTROL EQUIPMENT FLARE		OPERATING MODE NORMAL		10:40	20	0
DESCRIBE EMISSION POINT JUST ABOVE FLARE				11:05	20	0
				11:30	20	0
HEIGHT ABOVE GROUND LEVEL 200'		DISTANCE FROM OBSERVER 200'				
HEIGHT RELATIVE TO OBSERVER 200'		DIRECTION FROM OBSERVER N				
DESCRIBE EMISSIONS NONE						
EMISSION COLOR NONE		PLUME TYPE: CONTINUOUS <input type="checkbox"/>				
		FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>				
WATER DROPLET'S PRESENT YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		IF WATER DROPLET PLUME ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>				
POINT IN PLUME AT WHICH EMISSION WERE DETERMINED NA						
DESCRIBE BACKGROUND white clouds						
WIND SPEED 10-15		WIND DIRECTION W				
AMBIENT TEMPERATURE 90		RELATIVE HUMIDITY NA				
LAYOUT SKETCH OF SOURCE 				INDICATE NORTH 		
				RANGE OF OPACITY READINGS MINIMUM 0 MAXIMUM 0		
				OBSERVER'S NAME (PRINT) TODD M. GREEN		
OBSERVER'S SIGNATURE 				DATE 6-29-95		
CERTIFIED BY 				DATE		
COMMENTS						

Visible Emissions Observation Form - Method 22

CLIENT/OWNER CUTEC		PROJECT NUMBER 7523		OBSERVATION DATE 6/29/95	START TIME 11:55	END TIME 13:05			
PLANT FORTIER		UNIT ACRYLONITRILE		Clock Time	OBSERVATION PERIOD DURATION (MIN/S)	ACCUMULATED EMISSION TIME (MIN/S)			
PROCESS EQUIPMENT VARIOUS		OPERATING MODE NORMAL							
CONTROL EQUIPMENT FLARE		OPERATING MODE NORMAL		11:55	20	0			
DESCRIBE EMISSION POINT JUST ABOVE FLARE									
HEIGHT ABOVE GROUND LEVEL 200'		DISTANCE FROM OBSERVER 200'					12:20	20	0
HEIGHT RELATIVE TO OBSERVER 200'		DIRECTION FROM OBSERVER N							
DESCRIBE EMISSIONS NONE				12:45	20	0			
EMISSION COLOR NONE		PLUME TYPE: CONTINUOUS <input type="checkbox"/>							
		FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>							
WATER DROPLET'S PRESENT YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		IF WATER DROPLET PLUME ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>							
POINT IN PLUME AT WHICH EMISSION WERE DETERMINED NA									
DESCRIBE BACKGROUND GRAY CLOUDS									
WIND SPEED 10-15		WIND DIRECTION W							
AMBIENT TEMPERATURE 90		RELATIVE HUMIDITY NA							
LAYOUT SKETCH OF SOURCE		INDICATE NORTH							
				RANGE OF OPACITY READINGS MINIMUM 0 MAXIMUM 0					
				OBSERVER'S NAME (PRINT) TODD M. GREEN					
				OBSERVER'S SIGNATURE <i>Todd M. Green</i>		DATE 6-29-95			
				CERTIFIED BY		DATE			
COMMENTS									

Field Data Printout

Location: AN Plant Flare Inlet Method: 4 Bar. Press. (in. Hg): 30.00
 Test Run: 1 Testing Type: Moisture Actual Moisture (%): 4.7
 Client: Cytac Industries, Inc.
 Project No: 7523
 Test Date: 6/29/95
 Meter ΔH : 1.7336 Area (ft²): 3.14
 Meter Y_d : 0.9834
 Pitot C_p :
 Static P:
 Leak Rate Before: 0.000 cfm @ 15"Hg
 Leak Rate After: 0.000 cfm @ 10"Hg
 O₂ (dry volume %): 1.4
 CO₂ (dry volume %): 5.3
 Start Time (approx.): 09:35
 Stop Time (approx.): 10:05
 H₂O (condensate, ml): 23.0
 H₂O (silica, g): 42.3

Traverse Point	Velocity V_s (ft/min)	Stack T_s (°F)		Run Time	Sample ΔH (in. H ₂ O)	Metered (ft ³)	Dry Gas Meter		Volume (calculated) (ft ³)
							$T_{m in}$ (°F)	$T_{m out}$ (°F)	
				0.0		862.88			
1	61	90		5.0	1.80	866.86	81	80	3.98
2	57			10.0	1.80	870.92	86	81	4.06
3	64			15.0	1.80	874.76	89	81	3.84
				20.0	1.80	878.57	92	83	3.81
				25.0	1.80	882.36	93	83	3.79
				30.0	1.80	886.73	94	84	4.37
Final	61			30.0	1.80	23.85	86		

Field Data Printout

Location: AN Plant Flare Inlet

Method: 4

Bar. Press. (in. Hg): 30.00

Test Run: 2

Testing Type: Moisture

Actual Moisture (%): 4.7

Client: Cytec Industries, Inc.

Project No: 7523

Test Date: 6/29/95

Meter ΔH : 1.7336

Area (ft²): 3.14

O₂ (dry volume %): 1.7

CO₂ (dry volume %): 5.4

Meter Y_d: 0.9834

Start Time (approx.): 10:35

Pitot C_p:

Stop Time (approx.): 11:05

Static P:

H₂O (condensate, ml): 28.0

Leak Rate Before: 0.000 cfm @ 15"Hg

H₂O (silica, g): 44.0

Leak Rate After: 0.000 cfm @ 10"Hg

Traverse Point	Velocity V _s (ft/min)	Stack T _s (°F)		Run Time	Sample ΔH (in. H ₂ O)	Metered (ft ³)	Dry Gas Meter		Volume (calculated) (ft ³)
							T _{m in} (°F)	T _{m out} (°F)	
				0.0		888.91			
1	73	90		5.0	1.80	890.71	92	86	3.80
2	66			10.0	1.80	894.42	96	87	3.71
3	58			15.0	1.80	898.27	97	87	3.85
				20.0	1.80	902.54	98	88	4.27
				25.0	1.80	906.21	98	88	3.67
				30.0	1.80	909.95	99	89	3.74
Final	66			30.0	1.80	23.04	92		

Field Data Printout

Location: AN Flare
 Test Run: 1
 Client: Cytec Industries, Inc.
 Project No: 7523
 Test Date: 6/29/95
 Meter ΔH : 1.7336
 Meter Y_d : 0.9834
 Pitot C_p :
 Static P:
 Leak Rate Before: 0.000 cfm @ 15"Hg
 Leak Rate After: 0.000 cfm @ 10"Hg

Method: 4
 Testing Type: Moisture

Bar. Press. (in. Hg): 30.00
 Actual Moisture (%): 4.7

Area (ft²): 3.14

O₂ (dry volume %): 1.4
 CO₂ (dry volume %): 5.3
 Start Time (approx.): 09:35
 Stop Time (approx.): 10:05
 H₂O (condensate, ml): 23.0
 H₂O (silica, g): 42.3

Traverse Point	Velocity V_s (ft/min)	Stack T_s (°F)		Run Time	Sample ΔH (in. H ₂ O)	Metered (ft ³)	Dry Gas Meter		Volume (calculated) (ft ³)
				0.0		882.88	$T_{m\ in}$ (°F)	$T_{m\ out}$ (°F)	
1	61	90		5.0	1.80	886.86	81	80	3.98
2	57			10.0	1.80	870.92	86	81	4.06
3	64			15.0	1.80	874.76	89	81	3.84
				20.0	1.80	878.57	92	83	3.81
				25.0	1.80	882.36	93	83	3.79
				30.0	1.80	886.73	94	84	4.437
Final	61			30.0	1.80	23.85	86		

Field Data Printout

Location: AN Flare Method: 4 Bar. Press. (in. Hg): 30.00
 Test Run: 2 Testing Type: Moisture Actual Moisture (%): 4.7
 Client: Cytec Industries, Inc.
 Project No: 7523
 Test Date: 6/29/95
 Meter ΔH : 1.7336 Area (ft²): 3.14
 Meter Y_d : 0.9834
 Pitot C_p :
 Static P:
 Leak Rate Before: 0.000 cfm @ 15"Hg
 Leak Rate After: 0.000 cfm @ 10"Hg

O₂ (dry volume %): 1.7
 CO₂ (dry volume %): 5.4
 Start Time (approx.): 10:35
 Stop Time (approx.): 11:05
 H₂O (condensate, ml): 28.0
 H₂O (silica, g): 44.0

Traverse Point	Velocity V_s (ft/min)	Stack T_s (°F)		Run Time	Sample ΔH (in. H ₂ O)	Metered (ft ³)	Dry Gas Meter		Volume (calculated) (ft ³)
							$T_{m in}$ (°F)	$T_{m out}$ (°F)	
				0.0		886.91			
1	73	90		5.0	1.80	890.71	92	86	3.80
2	66			10.0	1.80	894.42	96	87	3.71
3	58			15.0	1.80	898.27	97	87	3.85
				20.0	1.80	902.54	98	88	4.27
				25.0	1.80	906.21	98	88	3.67
				30.0	1.80	909.95	99	89	4.374
Final	66			30.0	1.80	23.04	92		

Field Data Printout

Location: AN Flare	Method: 4	Bar. Press. (in. Hg): 30.00
Test Run: 3	Testing Type: Moisture	Actual Moisture (%): 4.6
Client: Cytec Industries, Inc.		
Project No: 7523		
Test Date: 6/29/95		O ₂ (dry volume %): 1.3
Meter ΔH@: 1.7336	Area (ft ²): 3.14	CO ₂ (dry volume %): 5.8
Meter Y _G : 0.9834		Start Time (approx.): 11:35
Pitot C _p :		Stop Time (approx.): 12:05
Static P:		H ₂ O (condensate, ml): 25.0
Leak Rate Before: 0.001 cfm @ 15"Hg		H ₂ O (silica, g): 42.5
Leak Rate After: 0.004 cfm @ 10"Hg		

Traverse Point	Velocity V _s (ft/min)	Stack T _s (°F)	Run Time	Sample ΔH (in. H ₂ O)	Metered (ft ³)	Dry Gas Meter		Volume (calculated) (ft ³)
						T _{m in} (°F)	T _{m out} (°F)	
			0.0		910.05			
1	69	89	5.0	1.80	914.09	93	90	4.04
2	64		10.0	1.80	917.82	95	90	3.73
3	67		15.0	1.80	921.02	97	91	3.20
			20.0	1.80	924.87	99	92	3.85
			25.0	1.80	929.43	102	93	4.56
			30.0	1.80	933.27	103	93	3.84
Final	67		30.0	1.80	23.22	95		

CERTIFICATE OF ANALYSIS

CUSTOMER: Cytos

DATE RECEIVED: July 7, 1986

SAMPLE TYPE: Tedlar bags

JOB/P.O NUMBER: 84-7823

PARAMETERS: BTU

DATE REPORTED: Aug 3, 1986

MARKS: 7832-01-00

Laboratory Number	Sample Identification	Heating Value (BTU/RS)
	Acrylonitrile plant flare	
7832-10	Run 1	48.2
7832-11	Run 2	61.8
7832-12	Run 3	46.3

Analyst:


Gary Zepel
Analytical Chemist

[illegible]

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Clean Air Engineering